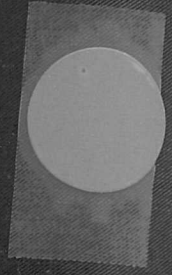

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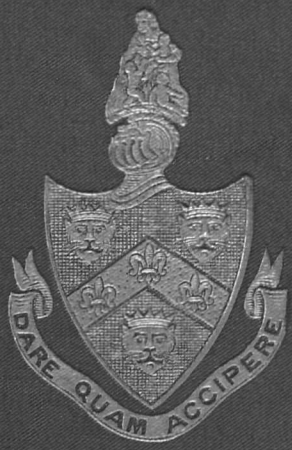

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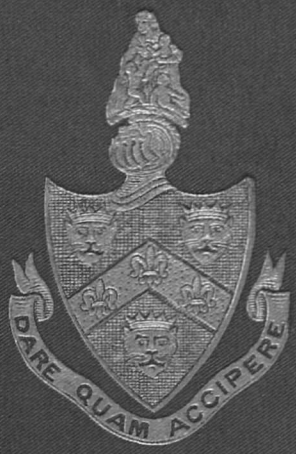

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GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

January.

Sat. 9. 1st XV. v. U.C.S. Old Boys (Home).
2nd XV. v. U.C.S. Old Boys (Away).
1st XI. v. Surbiton Park (Home).
2nd XI. v. Surbiton Park "A" (Away).

Mon. 11. Clinical Lecture by Sir Cooper Perry (Dermatology), 1.15 p.m.

Wed. 13. 1st XI. v. Old Felstedians (Home).

Thur. 14. Messrs. Dunn and Rowlands' Take-in (Messrs. Lobb and Townrow).

Sat. 16. 1st XV. v. Blackheath (Away).
2nd XV. v. Lennox (Home).
1st XI. v. Beckenham (Home).
2nd XI. v. Beckenham "A" (Away).
Meeting of Debating Society, 8 p.m.

Mon. 18. Clinical Lecture by Mr. Rowlands (Orthopædics), 1.15 p.m.
Meeting of Physiological Society, 4 p.m.

Wed. 20. Meeting of Physical Society. Paper by Mr. A. N. Leeming on "Vaccines and the Opsonic Index." President: Mr. W. H. Trethowan; 8 p.m.

Thur. 21. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Syms and Pinching).

Passim.

THE present number of the GAZETTE is the first of a new volume, the twenty-third. We would remind our readers that the subscription of 12s. 6d. to the Clubs' Union for the GAZETTE and Reports fell due on the 1st inst. The subscription to the GAZETTE alone, 7s. 6d., is also due, and cheques and postal orders should be made payable to Mr. C. H. Wells, Guy's Hospital, and forwarded as soon as possible. An index and a title-page for the new volume just completed are being prepared, and may be obtained from the librarian. Subscribers can now have their sets of the GAZETTE bound for 1s. 6d. a volume by leaving them with the librarian. The binding is in two shades of blue cloth—navy blue or a lighter tint—with the arms of the hospital in gold.

FROM beginning to end, Christmas week went with *éclat*. A more or less complete account of the various concerts and entertainments will be found elsewhere—only "more or less complete" because the efforts exerted by some in the organisation of concerts, etc., seem to leave them no energy to furnish the GAZETTE with a report of the same. But we are not at all desirous to carp or criticise, and in any case the success of Christmas week leaves us no justification to do so. From Christmas Eve, when the Southwark Cathedral Choir, under the direction of Dr. Madeley Richardson, kindly made a tour of the wards, and sang a carol in each with beautiful effect, until the moment when the man with the hose-pipe put out a very successful New Year's Eve bonfire, everything went beautifully. We overheard one patient say to another, "My word! Don't I just wish Christmas came every other week," and although we cannot agree with him, we can appreciate the state of mind which prompted the remark.

WARNED in time by an allusion in Mr. Brookhouse's play, we have spent no time and exerted

no trouble in trying to find any new adjectives to apply to the Christmas decorations. If we say that they were well up to the level of previous years, we are by no means damning them with faint praise; indeed, we cannot offer them any greater praise. It is fortunately no part of our duty to undertake the invidious task of deciding which ward looked the prettiest. In most cases the time-honoured arrangement of ivy festoons and coloured lamps had been adhered to, and it can scarcely be improved upon, but in a few wards more original schemes were carried out, and were very effective.

THE Niggers, under the imposing title of "The Ortobehung-arian Mixed Grille Band," were a credit to Mr. Henderson, who had drilled the chorus, and to Mr. Price, who was in charge of the band. The disguises were most effective, and the division into policemen and suffragettes, or squeaks and squawks, caused much merriment. The photograph of last year's Nigger troupe hanging in the Colonnade (it being apparently no one's business to take it down) may have acted as a reminder of past achievements and a stimulus to fresh triumphs. At any rate it may be said that, if the "wheezes" were below the average, the harmonized chorus-singing was above; the general management and drilling of the troupe could probably not have been excelled.

THE delightful posters which adorned the colonnade, and invited all and sundry to this or that concert, were much admired, especially two which advertised the Luke and Cornelius concert. To Miss Vandermin, Mr. Wingent, and others, who again exercised their ingenuity in this direction, we tender our most hearty thanks for their success in brightening up the otherwise undecorated colonnade. Mr. Wingent's talented "pencil," indeed, was kept busy in other directions besides that of concert posters, and the programmes for several Christmas functions bore evidence of his activity.

THE Residents' Theatricals were also extremely successful. An account of Mr. Brookhouse's clever topical farce will be found elsewhere. Here it is only necessary to thank him for this, the third play with which he has enlivened our hospital Christmas. Many of the good things from "Ortocure" are still remembered and quoted with relish, and many more good things from "The Dean's Dilemma" will now join them in the memories of those who were fortunate enough to see the play.

EVERYONE will be glad to hear that it is proposed to publish the farce as a souvenir of the Residents' Theatricals, similar to the "Ortocure" published a year ago. A subscription form is inset in the present issue of the GAZETTE, and this should be filled in and returned to us by anyone who wishes to secure a copy of the new volume. Those who were not present at the theatricals will be glad to make the acquaintance of "The Dean's Dilemma," and those who *were* present will be even more glad to renew it. Everyone, therefore, has an excuse for subscribing to the volume, and to have an excuse for doing anything goes a long way towards doing it. Therefore please fill in the form and return it as soon as possible.

THE weather conditions prevailing on the third night of the theatricals emphasized the want of a subterranean passage connecting the hospital and Medical School. It is true, the excellence of the entertainment made it worth while to brave the elements, but the disadvantages of crossing the Park in evening dress after a snowstorm are obvious. And it is not only in times of revelry that such an underground passage would be useful. There is quite sufficient time in crossing the Park to get uncomfortably wet with rain, and it is not effeminate to object to sitting through an hour's lecture in such a condition.

THE Residents' going-off dinner was held on Christmas Day, at the conclusion of the Niggers' arduous labours. Mr. Dryland, the retiring president, announced that the Residents had elected Mr. A. S. Morton Palmer to be their chief, and Mr. H. J. Henderson as their second in command, and certainly no more popular choice could have been made. To these gentlemen we extend our heartiest congratulations,

while to Messrs. Dryland and Palmer, and the other off-going Residents, Messrs. Hinde, Joynt, and Ticehurst, we can only express our sorrow at losing them. Six months is such a considerable bit of life, especially on the resident staff of a great hospital, that it cannot but be a wrench to give up the place to another at the end of that time. The Christmas going-off dinner was marked by the usual hilarity and jolly good-fellowship, and ended with "Auld Lang Syne"—sung with the usual uncertainty as to the words.

Now that Christmas is all over, and everyone is full of repentance for past indiscretions, and full of good resolutions for future conduct, now that the hospital has settled down again to more or less steady routine for another twelve months, now that the decorations are all burned, the Niggers' faces all clean once more, and the lecture theatres again given up to mere lectures, the Debating Society callously proposes to dissect Christmas (the supply of the more usual material being unfortunately inadequate) and to expose to scorn its objectionable qualities. At the meeting of the society next Saturday evening Mr. Killpack will move, "That in the opinion of this House the modern method of celebrating Christmas is objectionable." Mr. Levinson will oppose the motion. What the "modern method" may be will no doubt appear, and although the rules of the society rightly preclude from the debate the religious aspects, there should be plenty of scope for discussion on the purely social side of the question, and especially on the social side of the hospital Christmas.

IT is always gratifying to the writer of these columns to obtain evidence that the GAZETTE is appreciated by old Guy's men. The following letter, therefore, received from Lieutenant-Colonel John Ince, formerly of the Indian Medical Service, who, as his letter shows, must be one of the oldest of old Guy's men, could not fail to be a source of interest and satisfaction to us:—

> I was very much interested—and touched indeed—with the biographical sketches, with portrait, of the great Thomas Addison of ours. I went to Guy's in October, 1851, and left for the Indian Medical Service about May, 1856, arriving in Calcutta in August of that year in time for the Mutiny of the following year. The portrait does not quite show the peculiar expression of *hauteur*, nor the walking attitude, of that admirable and distinguished physician, equally feared and admired by the students of my time. Verily, with Addison, and John Hilton, Guy's at that time could justly boast. I fancy I can now see Addison sitting listening to the Anatomical lectures of John Hilton, as he often did, half hidden, in the Anatomical theatre.

WE are asked to announce that the Dental Society's Annual Dinner will be held on Saturday, February 13th, at the Trocadero Restaurant. Tickets, price 6s. 6d. each, and further information, may be obtained from the secretary of the society, Mr. Bull.

THE address delivered by Mr. Rudyard Kipling before the students of the Middlesex Hospital at the beginning of the present Winter Session has been reprinted under the title: "*Doctors*" (Macmillan & Co., Price 1/- net), and is to be sold for the benefit of the hospital. The booklet contains a characteristic portrait of Mr. Kipling, and the actual address is prefaced by Mr. Reginald Lucas, a member of the Board of Management, in a note which explains the circumstances under which the address was delivered, and gives some particulars of the history of the Middlesex Hospital and of the Cancer Charity and research in connection with it. Of Mr. Kipling's address it is not necessary here to say anything, except that it has the strength and manliness and simple style of its author's best work. Those who remember the strong and noble doctors described in Mr. Kipling's novels, will not be surprised to find that he is a firm friend of the profession. The booklet before us should give many a doctor renewed pride in his work, and many a patient renewed faith in his doctor, and it will be read with interest by all.

THE Annual Report of the Livingstone College for the past year shows a very satisfactory state of affairs. As most of our readers are aware, this institution exists for the purpose of giving an elementary medical training to missionaries who are going out to foreign parts. Students are received for this training irrespective of their sect or nationality. The importance of a medical training to the missionary cannot be over-estimated, and was shown clearly enough

in the life of the great man after whom this college was named. During the past year, at a reception in connection with the Pan-Anglican Congress, Sir Patrick Manson emphasized this important association of healing the sick, and preaching the gospel, in an address on "Tropical Research in its Relation to the Missionary Enterprise." We are therefore very glad to hear that the college has made very satisfactory progress. An unprecedented number of students entered during 1908, and a deficit of £404 11s. 6d. at the end of the previous year has been reduced to £38 13s. 4d. A legacy of £50, moreover, has been placed to the Capital Account. We wish the College continued success, that it may continue its good work. Contributions will be gratefully acknowledged by the principal, Dr. C. F. Harford, Livingstone College, Leyton, E., who will also gladly send full particulars concerning the various courses of training which the College provides.

THE Annual Dinner of the Guy's Hospital London University Club will be held at the end of this month, probably on the 29th. Further details will be announced later. The Society, which was founded in 1889, has held many highly successful and well-attended evenings, and it is expected that this year the function will not be unworthy of its predecessors. It is hoped that, on the one hand, old Guy's men in practice and, on the other hand, the newer and junior members of the club, will make an effort to be present; for the Dinner is one of those rare but very pleasant occasions on which Guy's men of different years and other times can mix. It should be remembered that anyone who has matriculated at the London University is eligible for membership, and a large number of fresh members are expected to attend the Dinner. Application for membership can be made to either of the Secretaries, Mr. Philip Turner and Mr. K. H. Digby. There is no annual subscription to the club, and 7s. 6d. is the price of tickets for the Dinner.

THE Residents have arranged to hold their Annual Dance on Thursday, February 11th, at the Grafton Galleries. Mrs. Cosmo Bonsor has most kindly consented to act as hostess. The tickets, price 10s. 6d. for ladies and gentlemen alike, will be limited in number to 200. Supper and refreshments by Benoist.

WE much regret to announce the death of Dr. Charles Knott, which took place on the 28th of last month, at Portsmouth, where his loss will be severely felt. For Dr. Knott had entered heart and soul into various activities connected with the town. From the time when, in 1886, he became medical officer of the Portsmouth Workhouse, up to his death, he was associated with all the multifarious public duties which can occupy a medical man. His work at the infirmary was crowned some years ago by the formation of a training system for the nurses, in which scheme he took a leading part, and was rewarded by living to see its complete success. As chairman of the Portsmouth Centre of the St. John Ambulance, Dr. Knott was an indefatigable worker in the ambulance cause. In recognition of his services to the Order, he was made an Hon. Associate in 1889, and, some years later, a Knight. In addition, Dr. Knott took a part in the Volunteer movement; he raised and trained a most efficient bearer company in the 3rd Vol. Battalion Hants Regiment, and rose to the rank of Surgeon-Colonel.

BUT the death of Dr. Knott also makes a serious gap in the ranks of old Guy's men. Combining his great love for children with his reverence for the memory of Charles Dickens (and he was the founder and first President of the Dickens Fellowship in Portsmouth), Dr. Knott had the satisfaction of seeing the completion of a scheme he had long had in view—of permanently endowing a cot in Guy's Hospital to the memory of Dickens. By a happy coincidence, the endowment of £500 was completed exactly thirty-five years after Dr. Knott had left Guy's, and the "Tiny Tim" cot in Miriam ward, of which a photograph was published in the last volume of the GAZETTE, became available for use. Following this successful achievement, Dr. Knott initiated a fund to provide a second Dickens' memorial at Guy's, to be called the "Little Nell" cot, and we understand that just over £80 has been contributed towards this. It would be the best tribute to the memory of the late doctor that he would have desired if the sum to complete this endowment could be collected, and a "Little Nell" cot entered on its career of usefulness to little patients coming from a part of London which has such rich associations with Charles Dickens.

Guy's Hospital.

SOME STATISTICS.

In accordance with annual custom, the House Committee publishes for the information of the Medical, Surgical and Nursing Staff the following tables showing the total number of patients sent during the past year to the various Convalescent Homes connected with the Hospital, and the amounts found in the Ward Collecting Boxes together with special donations.

Wards.	Number of Patients. 1908.	1907.
Astley Cooper	23	17
Cornelius	23	14
Lazarus	21	22
Job	52	34
Naaman	10	32
Luke	32	21
Patience and Samaritan	32	18
Charity	50	61
Dorcas	23	18
Lydia	56	46
Martha	29	33
Eye Wards	19	11
Addison	103	111
Mary	62	74
Stephen	44	65
Esther	84	78
Queen and Victoria	47	59
Clinical	76	78
Isolation	1	1
Surgery	1	1
Out-Patients	52	38
Total	840	832

The subjoined list gives the distribution of the patients amongst the various Convalescent Homes:—

Ascot Priory	158
Barnet (Children's Hospital)	13
Boxhill (M.C.I.)	15
Bognor (Merchant Taylors)	14
Broadstairs (M.C.I.)	89
Chirk (Lady Trevor's Home)	1
Gringley (Col. Laycock's Home)	30
Hampstead (Friedenheim)	1
Hassocks ("Sunshine" Home)	1
Hayes (Sir Everard Hambro's Home)	5
Lewisham (St. John's Hospital)	1
Littlehampton (Rustington Home)	17
Swanley	287
Swindon (to friends)	1
Walton-on-Thames (M.C.I.)	63
Worthing (Miss Henry)	143
" (St. Mary's)	1
	840

The following is the list of amounts received from patients in the various wards, and sums found in the Ward Collecting Boxes, etc., for the year ending December 31st, 1908. The amounts received in the previous year are inserted for the purpose of comparison.

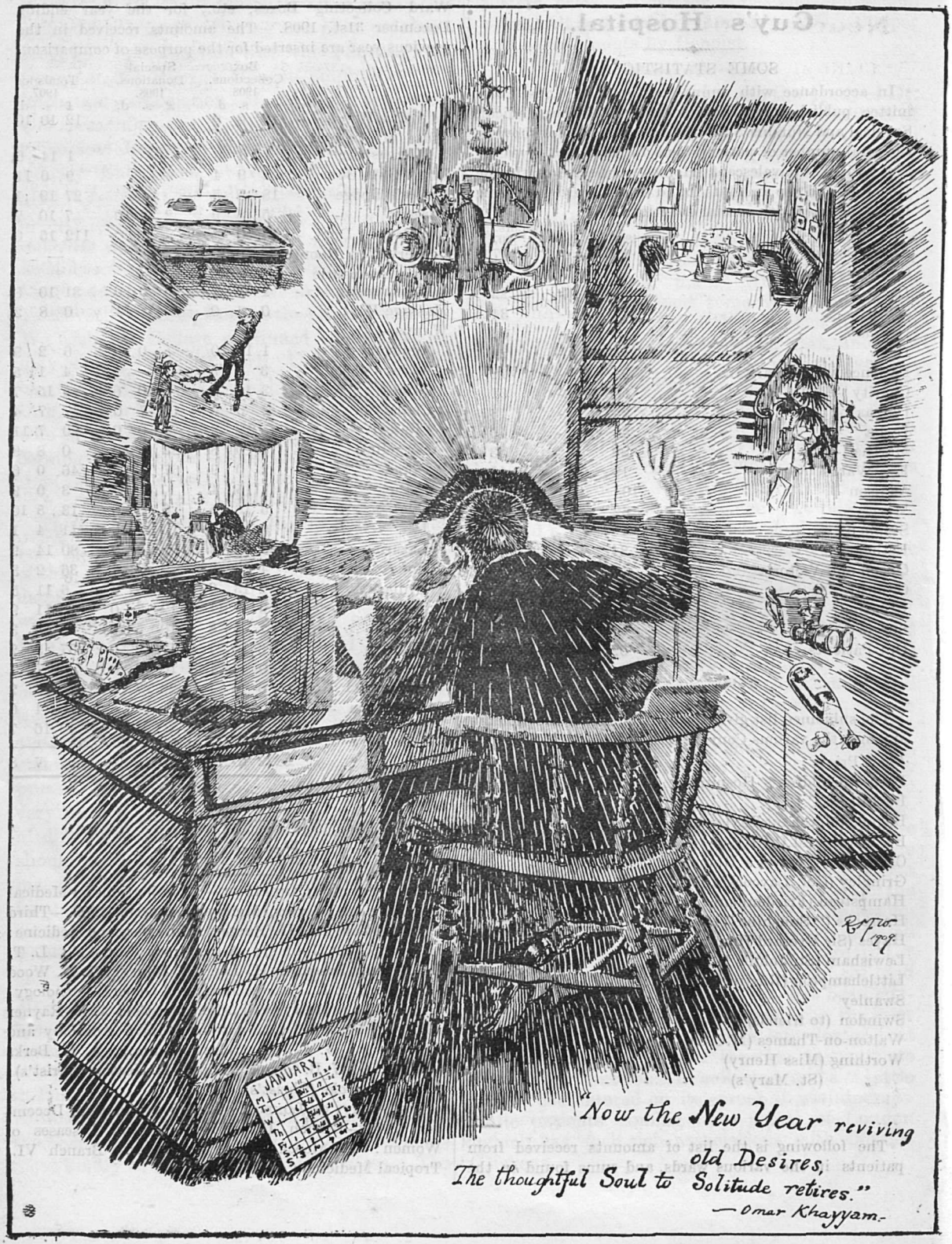
	Box Collections. 1908 £ s. d.	Special Donations. 1908. £ s. d.	Totals for 1907. £ s. d.
Counting House	19 0 0	—	12 10 10
Office of Secretary to Treasurer	1 3 9	—	1 14 6
Front Gate Box	2 9 4	—	9 0 11
Porter's Lodge	18 5 5	—	27 19 1
Surgery	5 8 9	2 12 10	7 10 2
Out-Patient Dept.	113 0 2	—	112 15 0
Conservation Room	2 0 10	—	—
Actinotherapeutic Department	1 1 7	5 0 0	31 10 8
Massage Dept.	0 4 0	—	0 8 2
WARDS—			
Addison	1 10 10	5 0 0	6 2 9
Astley Cooper	3 6 5	—	4 1 5
Bright	3 10 5	5 10 6	5 15 7
Charity	2 0 9	17 7 0	7 7 4
Clinical	5 18 3	2 0 0	20 7 11
Cornelius	1 0 8	22 5 0	0 8 9
Dorcas	2 0 9	67 15 6	46 0 6
Esther	1 15 4	—	3 0 9
Eye	3 18 5	6 5 0	13 5 10
Job	6 0 6	13 13 6	11 4 1
Lazarus	3 9 2	21 13 0	80 14 9
Luke	4 16 6	9 2 6	36 2 3
Lydia	2 13 6	2 10 0	6 11 5
Martha	3 9 11	19 7 0	16 11 9
Mary	1 6 8	10 5 0	2 13 3
Naaman	3 10 1	17 12 0	37 5 2
Patience	0 8 1	10 0 0	0 7 7
Queen and Victoria	6 3 1	26 7 0	75 16 2
	0 18 7	11 11 0	16 4 6
Stephen	1 19 2	—	3 16 7
	£222 10 11	£275 16 10	£597 7 8

Total - £498 7s. 9d.

Pass List.

UNIVERSITY OF CAMBRIDGE.—Examinations for Medical and Surgical Degrees, Michaelmas Term, 1908.—Third Examination, Part II., Surgery, Midwifery and Medicine: H. Chapple (St. John's); A. H. Crook (Christ's); L. T. Dean (Sid., Sussex); H. Lee (St. John's); T. N. Wood (Pemb.). Part I., Pharmacology and General Pathology: H. L. Duke (Caius); W. Leslie (Christ's); A. E. Rayner (Caius). Second Examination, Human Anatomy and Physiology: G. W. M. Andrew (Emm.); A. H. Berks (Caius); G. W. B. Garrett (Caius); R. Heaton (Christ's); A. S. Seabrooke (Christ's).

UNIVERSITY OF LONDON.—M.D. Examination, December, 1908.—Branch IV., Midwifery and Diseases of Women: F. Alcock, C. A. L. Mayer. Branch VI., Tropical Medicine: O. Marriott.


JANUARY
"Now the New Year reviving old Desires,
The thoughtful Soul to Solitude retires."
—Omar Khayyam.

Neurasthenic Dyspepsia.

CLINICAL LECTURE BY DR. HERTZ.

GENTLEMEN,—All diseases of the stomach may be divided into two classes: those due to some grave organic lesion such as an ulcer, cancer or pyloric obstruction, and functional disorders, which may be grouped under the term "dyspepsia." The latter may be divided into three classes. The first includes those due to gastric irritation from errors of diet, either in quantity or quality. Under this head an organic disease, gastric catarrh, may be included, as it is difficult to draw a definite line between gastric irritation without organic change and gastric catarrh. Secondly, there are the symptomatic cases, a very large group, where the dyspepsia is due to some general condition, such as chlorosis or tuberculosis, or to disease of some other organ, such as the liver or heart, or to other abdominal conditions, such as visceroptosis and gall-stones. The third group of cases includes those in which the dyspepsia is due to an abnormal condition of the nervous system, which may be functional, as in the gastric symptcms of hysteria and neurasthenia, or organic, as in the gastric crises of tabes. I shall confine my remarks to-day to the dyspepsia which occurs with great frequency in neurasthenia.

Let us first consider the ætiology of neurasthenic dyspepsia. In a large number of cases there is some heredity influence, one or other of the parents being definitely neurotic; and often the patient has been more or less "nervous" since childhood. The exciting cause which leads to a definite attack of neurasthenic dyspepsia is often some depressing emotion, one which has lasted over a long period rather than a short-lived trouble, however severe, although the latter often causes temporary indigestion. In other cases there is a history of mental or physical overwork. But it is important to be sure that the physical or mental overwork is genuine, because patients are inclined to attribute a dishonourable indigestion to an honourable cause—they may have been eating or drinking too much, but hide the cause under a pretence of overwork. The association of worry with overwork is the most potent of all factors in the production of neurasthenic dyspepsia, as when a man is working hard in a business which is losing ground, or when a woman nurses a sick relative for a long period. Another group of exciting causes is associated with the sexual functions of women, as the condition may arise in pregnancy, lactation, and particularly at the climacteric. Lastly, no cause of neurasthenic dyspepsia is more important than laziness. When an individual has insufficient occupation he is apt to concentrate his attention upon his bodily functions, and particularly his digestion. There is a congenital type of laziness which was so admirably portrayed by Miss Mary Moore in "The Mollusc;" and there is the acquired type, which is seen in men who have spent an active life in business or a profession, and then, without having a hobby, retire. They have nothing to occupy their minds, so they think too much about their digestion, and they finally develop neurasthenic dyspepsia.

Before passing to the symptoms and the treatment, I will read you the notes of a typical case which was under me in Mary earlier this year. The patient is an unmarried woman, 38 years old. She has been the nurse, and latterly the housekeeper, in the same family for twenty years. Her mistress has been in delicate health ever since a severe illness four years ago. This has entailed much extra work and increased responsibility for the patient. Until four years ago she was in perfect health, but she then began to suffer from attacks of epigastric pain a quarter of an hour after food. Latterly the attacks have been much more frequent, and the patient has felt some abdominal discomfort and soreness in the intervals, especially before breakfast. The pain is most severe when she forces herself to eat in spite of the absence of appetite. There is nausea with the pain, but the patient has never vomited. On account of the pain she has taken very little solid food, and no meat for more than six months, in consequence of which she has lost a good deal of weight. A gastric ulcer was at one time suspected, so the patient was sent to Mr. Dunn with the idea of undergoing an operation, but he transferred her to me. On admission, she was thin and rather anæmic. Her teeth were good; her tongue moist and slightly furred; the abdominal wall was supple, no cutaneous hyperæsthesia was found, but there was a slight diffuse tenderness on deep palpation in the upper part of the abdomen with no obvious spot of maximum intensity. All her other organs seemed to be normal. From the examination we were able to exclude organic gastric disease, and from her history we concluded that she had neurasthenic dyspepsia due to overwork and worry. So she was treated by complete rest in bed and a full diet, including meat. She

was given no drugs, but was encouraged by everybody who came into contact with her to believe that she would soon be well if she would only eat more, and the most was made of the smallest improvement. She rapidly increased in weight, and complained of no further pain, except at first some slight discomfort after food, which soon disappeared. She got up after ten days, and was discharged from the hospital quite well in a fortnight. This case shows the importance of making a definite diagnosis, so as to give the proper treatment, as the diet suitable for a gastric ulcer would have been the worst possible thing for her.

The symptoms of neurasthenic dyspepsia can be divided into mental symptoms, gastric symptoms, and associated symptoms of other organs. There is always something abnormal in the mental condition. These patients are generally depressed and pessimistic, and suffer from mental fatigue, so that after a short period of work they find much difficulty in concentrating their thoughts. They pay great attention to the least abdominal discomfort, and to all their bodily functions. They often make a regular study of what they excrete, and may even keep a record of their pulse or temperature. They give the history of their condition in a very characteristic way. It is always long and full of details, and with a little encouragement they will go on talking indefinitely about their illness. They often have some theory about it: either that they have too much acidity, or it is due to the liver, or they are full of uric acid. I may quote as an illustration of this the case of a doctor, who was in the hospital not long ago, suffering from neurasthenic dyspepsia. He said that during the last few years he had suffered from migraine, gastritis, gastric ulcer, dysentery, mucous colitis, excess of uric acid, renal colic, difficulty in micturition, irregularity of the heart and palpitation, although there was nothing organically wrong with him at all, all the diseases mentioned being his own explanations of the symptoms of neurasthenia.

The gastric symptoms in neurasthenia are characterised by their extreme irregularity; one day the patient feels very ill, and the next day, for no very obvious reason, he is much better. The most constant symptom is a vague abdominal discomfort, which sometimes increases to actual pain. There are some features of the latter which distinguish it from the pain of organic diseases of the stomach. It is often very severe on first awaking in the morning, and as night approaches it tends to improve, partly owing to the interests of the day diverting the patient's attention away from his troubles, and partly owing to the taking of nourishment, as first thing in the morning there has been a long period of starvation. After each meal a change in the abnormal sensations occurs; generally there is a feeling of fulness and discomfort, which begins already after a very small quantity of food has been eaten. It may be associated with a sensation of tightness of the chest, and with palpitation. This discomfort has very little relation to either the amount or the kind of food, differing in that way from the discomfort of most organic gastric diseases. Until the nature of the condition is recognised, various diets are tried, without any relief being obtained. But if you suddenly put such a patient on full after a restricted diet, either he is no worse or he is actually better. That is a characteristic feature of neurasthenic dyspepsia. Another important point is that the discomfort and pain vary with the mental condition. If there is any increase in worry or excitement the discomfort increases. On the other hand, if the patient has some new interest, or has a change of surroundings, the discomfort will disappear for the time. Nausea sometimes occurs, but vomiting is unusual, though it is common enough in hysteria.

Another important symptom is flatulence. This is not due to any abnormal decomposition going on in the stomach, but the abnormal distension with gas and the eructation are due to aërophagy, air being swallowed by the patient. He attempts to remedy the discomfort in his stomach by eructating, but he always swallows air in the attempt, whether he succeeds in bringing up any gas or not. It is surprising how readily the patient can control this by an effort of will. A few weeks ago a woman came to me at Out-patients, making a continuous rattling noise like a Maxim gun. I told her we would not examine her unless she was quiet. After that she remained in the room a quarter of an hour without making another sound.

In this form of dyspepsia the appetite is always diminished; insufficient food is taken, so that the nervous system deteriorates still further; and this reacts again on the digestion, a vicious circle being produced. Probably loss of appetite is not the primary condition, but is due to the diminution in the quantity of food taken. The patient is very likely to diet himself because he thinks the trouble is due to some special article of food. He gives up one article of food after another without obtaining relief, but with the result that he takes insufficient nourishment.

Voluntary starvation of this sort, when the quantity of food taken is only gradually reduced, always results in a corresponding diminution in the appetite. This is in sharp contrast to the effect of acute starvations such as of necessity occurs, for example, after swallowing a caustic poison, when very painful hunger results. In the anorexia of neurasthenia, however, the patient subsists on extremely small quantities of food without experiencing any desire for more. As a result his weight diminishes very considerably, until a point is reached when the reduced weight and the intake of food balance each other, the metabolism being now on a very low plane.

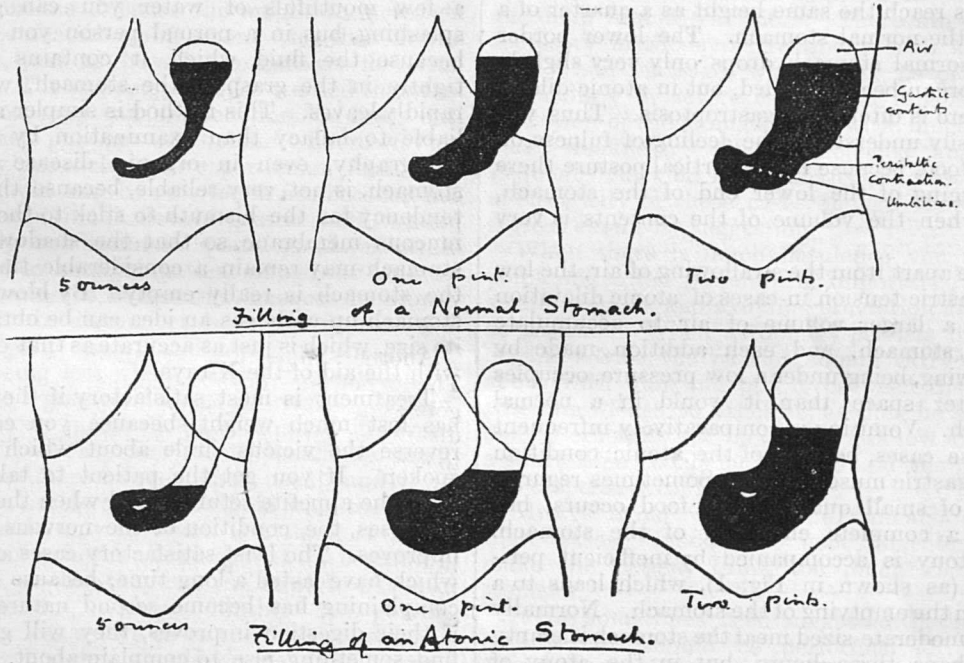


FIG. 1.

Associated with the wasting is considerable physical weakness. This may involve the abdominal muscles, so that the discomfort due to visceroptosis is added to the simple dyspepsia of neurasthenia.

There are a number of associated conditions to which I shall briefly refer; most of these show the same sort of diurnal variation as the dyspepsia. When the abdominal discomfort is worst there are nervous symptoms of various sorts—headache, pain in the back of the neck and in the lumbar region, and giddiness. Insomnia is a frequent symptom. There are also various vasomotor abnormalities, such as flushing, which is particularly common at the menopause, and coldness of the extremities.

We now come to the explanation of all these discomforts. You remember that the digestion is under the control, to a considerable extent, of the nervous system. Pawlow showed that the secretion of gastric juice can be inhibited by all depressing emotions, and Cannon, by X-ray observations, showed that the movements of the stomach and intestines are inhibited by the same influences. So in these patients with a depressed nervous system the hydrochloric acid of the gastric juice is frequently diminished, and the motor activity of the stomach and intestines is deficient. The latter leads to constipation, which is frequently associated with neurasthenic dyspepsia. The diminished motor activity is shown not only in insufficient gastric and intestinal peristalsis, but also by diminution in the tone of the gastro-intestinal musculature. The condition often known as atonic dilatation of the stomach is thus produced. Under normal conditions the tension inside the stomach is practically constant, whatever the quantity of its contents may be. It has been found with the X-rays (Fig. 1) that if five ounces of fluid are taken into the stomach of an individual in the erect position, the upper limit of the fluid in

the stomach is practically the same as when two pints are taken, and if you connect a manometer with a tube introduced into the stomach you find that the positive pressure in the stomach is the same in both cases. This means that there is a certain amount of tone in the muscles of the stomach, which diminishes to an extent which corresponds exactly with the amount of food introduced. But in atony of the stomach the case is different, for if a small quantity of fluid is introduced into the stomach it falls to the bottom, because the stomach is already in a relaxed condition, and as more is added the upper limit of the contents rises, so that three pints may have to be added before the contents reach the same height as a quarter of a pint in the normal stomach. The lower border of the normal stomach drops only very slightly as the organ becomes filled, but in atonic dilatation there is often also gastroptosis. Thus you can easily understand the feeling of fulness on taking food, because in the vertical posture there is a sagging of the lower end of the stomach, even when the volume of the contents is very small.

Quite apart from the swallowing of air, the low intra-gastric tension in cases of atonic dilatation causes a larger volume of air to accumulate in the stomach, and each addition made by swallowing, being under a low pressure, occupies a greater space than it would in a normal stomach. Vomiting is comparatively infrequent in these cases, because of the atonic condition of the gastric musculature. Sometimes regurgitation of small quantities of food occurs, but rarely a complete emptying of the stomach. The atony is accompanied by inefficient peristalsis (as shown in Fig. 1), which leads to a delay in the emptying of the stomach. Normally after a moderate-sized meal the stomach is empty in perhaps three hours, but in the atony of neurasthenic dyspepsia six or eight hours are often required. This is an important sign of atonic dilatation: if a healthy person lies down three or four hours after a meal and you try to produce a splashing sound by palpation of the stomach, you invariably fail. But in atonic dilatation there is a considerable amount of fluid still present in the stomach, together with excess of gas under low pressure, so that succussion is easily produced, sometimes as long as six hours after a meal. Atonic dilatation can be distinguished from the dilatation which occurs in organic obstruction of the pylorus in two ways. In the latter the dilatation of the stomach is a result of obstruction and not of weakness of the gastric muscles—in fact, the latter are often hypertrophied; hence there is very active peristalsis, which you can often see through the abdominal muscles, whereas in atonic dilatation there is neither visible nor palpable peristalsis. Secondly, in the majority of cases of atonic dilatation, in spite of the delayed emptying of the stomach, it does empty itself in nine or ten hours, so if you try to obtain splashing in such a stomach just before breakfast you fail, as it is then quite empty. A stomach tube will show the same thing. On the other hand, in organic obstruction you are likely to find by palpation or by passing a tube that some contents still remain in the stomach before breakfast. In atonic dilatation, if you give before breakfast a few mouthfuls of water you can get the splashing, but in a normal person you cannot, because the fluid which it contains is held tightly in the grasp of the stomach, which it rapidly leaves. This method is simpler and less liable to fallacy than examination by X-rays. Skiagraphy, even in organic disease of the stomach, is not very reliable, because there is a tendency for the bismuth to stick to the gastric mucous membrane, so that the shadow of the stomach may remain a considerable time after the stomach is really empty. By blowing the stomach up with gas an idea can be obtained of its size, which is just as accurate as that obtained with the aid of the X-rays.

Treatment is most satisfactory if the patient has lost much weight, because you can then reverse the vicious circle about which I have spoken. If you get the patient to take more food, the appetite returns; and when the weight increases, the condition of the nervous system improves. The least satisfactory cases are those which have lasted a long time, because in them complaining has become second nature; even if their digestion improves, they will generally find something else to complain about. Before deciding on the actual treatment, it is most important to make a thorough examination of the patient, so that you can tell him with confidence that there is nothing organically wrong. Being reassured, he will be prepared to undergo the treatment you suggest. But though you must say there is no organic disease, you must not imply that there is nothing at all the matter, because the discomforts of the patient are very real. You must sympathise with the patient to some extent, and explain that it is a question of the nervous system, and that the condition is absolutely curable. After your first examination, it is well not to repeat it too often; otherwise the patient's attention will be redirected to his stomach. For the same reason

it is unwise to make examinations by means of the stomach tube, unless there is any cause for suspecting cancer or other diseases which gastric analysis could help to discover. But there are occasional exceptions, as some patients are not satisfied that they have no serious disease with anything short of an examination by the stomach tube. Thus one man I know had been examined for nervous dyspepsia by about thirty different doctors in England and abroad, and when he came to me he classified them into the good and the bad, according to whether they had given him a test-meal or not.

The most important part of the treatment is to cure the inanition—to give more food, and by that means to cause the weight to increase. So the essential thing about the diet is its quantity, just as in organic diseases it is its quality. The patients must be warned that the extra food may cause discomfort at first, but they must put up with that. There is no necessity to exclude any particular food, but there should not be very much fat, because fat tends to inhibit the flow of gastric juice, which is already insufficient in quantity. It is often necessary to keep the patient in bed for a time; in severe cases it is essential, because in atonic dilatation the discomfort is much less with the patient lying down; and owing to the metabolism being less when resting, the same food will cause a greater increase in weight. Certain modifications in the diet are required in severe atonic dilatation. The meals should be small in bulk but more frequent than usual, and it is important not to give much fluid with the food; fluids should only be taken last thing at night and first thing in the morning, or at the beginning of a meal, so that they can run straight out into the duodenum, without diluting the gastric juice. In less severe cases the patient need not be kept in bed, but should go into the country, and take as much exercise as he can without producing great fatigue, as this will help him to eat more. Pawlow's experiments on the psychical flow of gastric juice should be remembered, and the food be presented to the patient in as pleasant a way as possible. For that reason many cases are best treated at home and not isolated, as pleasant surroundings and cheerful conversation during meals distract the attention, so that the gastric discomfort will not be felt so much. It is also important to see that the teeth are in good condition, and that the food is properly chewed.

Drugs which are supposed to correct the gastric chemistry—acids, such as hydrochloric acid, alkalies like sodium bicarbonate, and ferments such as pepsin—are of very little use in these cases. The important thing is to treat the underlying nervous condition, not the stomach. One drug which is often very useful is arsenic. It is not known exactly how it acts, but it appears to be a tonic to the nervous system. In women at the menopause, neurasthenic dyspepsia is often greatly benefited by such small doses as two minims of liquor arsenicalis taken three times a day, and strychnine may be added, as it often proves valuable, probably by stimulating the central and peripheral nervous system. There is no reason why the patient should not have alcohol if he likes it, as it may then improve his appetite and help him to eat more. There are various accessory methods of treatment, such as electricity and massage, which may be of value, particularly in severe cases with much atonic dilatation of the stomach and with much muscular weakness. Static electricity and high frequency currents are perhaps the best forms of electricity in these cases, though they act to a great extent by suggestion.

When there is much flatulence you should point out to the patient the importance of not swallowing air, and avoiding eructation as much as possible. When aërophagy persists in spite of this advice, the patient should carry a cork about with him, and put it between his teeth when he wishes to eructate, as then he may be able to eructate, but he cannot swallow air. In a short time the habit is cured and the patient can dispense with the cork.

Always avoid washing the stomach out in these cases. It does no good, and tends to make the patient think too much about his stomach.

It has sometimes been suggested that gastro-enterostomy should be performed for atonic dilatation of the stomach. This should never be done, as the passage of the gastric contents into the duodenum is not obstructed, and atony cannot by any possibility be improved by operation.

Papers by Guy's Men.

Notes on the Diagnosis of Scarlet Fever and Diphtheria. By Herbert E. Cuff, M.D., B.S. Lond., F.R.C.S. Eng. —*The Practitioner*, January, 1909.

Features of Some Chronic Affections of the Lungs in Children. By Theodore Fisher, M.D. Lond., F.R.C.P. Lond.—*The Lancet*, January 2nd, 1909.

On the Diagnosis of Scarlet Fever and Diphtheria. By E. W. Goodall, M.D. Lond.—*The Practitioner*, 2nd January, 1909.

Christmas Week.

The Residents' Theatricals.

December 26th, 28th, 29th.

PART I.

A Play in One Act, entitled

"CHARLES I. and CHARLES II."

By GERALD DU MAURIER and S.O.N. FRERE.

Dr. Robinson - - - - G. W. DRYLAND.
Mr. Charles Jones (a Stockbroker) B. H. PALMER.
Mr. Charles Brown - - - H. J. HENDERSON.

Scene Dr. Robinson's Consulting Room in Harley Street.

Time - - - 10 a.m.

This amusing trifle is described as a play, but is really a farce. One Charles is calling on the doctor to plead for his daughter's hand in marriage, the other is calling as an ordinary patient; but, as is the way in farce, the one Charles is mistaken for the other, and the comedy of errors which ensues is easier to imagine than to describe. It is only necessary to say that the little play was very well acted by Mr. Dryland as the perplexed doctor-father, who added some local touches which did not fail to make their mark; by Mr. Palmer as the anæmic-looking patient; and by Mr. Henderson as the pink-complexioned immaculate young lover, whose shoe latchets we are not worthy to describe.

PART II.

This part of the entertainment was different on each of the three evenings. On December 26th and 28th the party of talented musicians whose performances delighted us last year were again kind enough to come and again delight us. On the 26th, Miss Madeline Royle played two pianoforte solos in brilliant style—Chopin's "Nocturne in C minor" and Liszt's "La Campanella"; for an encore she played a well-known Chopin valse. Miss Julia Caroli's splendid voice was heard in two songs, and afterwards in the old familiar "Keys of Heaven" duet with Signor Manrico Bacci. This duet is so popular that it is scarcely necessary to say it was encored. Signor Bacci also sang a song of Tosti's and several by Mme. Guy d'Hardelot, who was good enough to come and accompany them. Miss Flo Macdonald gave two delightful recitations.

On December 28th the same party of artistes appeared, and gave a new and equally excellent programme. Practically every item was encored. We wish to thank these ladies and Signor Bacci most heartily for their kindness in giving so much of their time and talent to our entertainment.

On December 29th the concert was entirely provided by our own musical circle, with the exception of Miss Baker, who sang, and Mr. Stanley Hazell, who gave us three of his own delightful comic songs. "Crazes," especially, has humour, both in the words and music, such as is too often absent in so-called comic songs. Messrs. Irvine, Price, Peall, and Kidd sang some items from their Gilbert and Sullivan *repertoire*, which we must confess we were never tired of hearing. Miss Winifred Gardiner very kindly undertook all the accompaniments at a moment's notice.

PART III.

The serious business of the evening on these occasions is always the most farcical. Much applause therefore greeted the rise of the curtain on

A Tactless Afterthought, in Two Acts, entitled

"THE DEAN'S DILEMMA:"

Or, The Socialist, the Sister, and the Statue.

Libretto by H. O. BROOKHOUSE, restrained by G. W. DRYLAND. Lyrics by H. O. BROOKHOUSE. Music specially composed by A. L. GARDNER.

STRABISMUS (OR CAST) —

Dr. Victor Brazen, M.P. (a Socialist Dean) - - - - - - - B. H. PALMER.
President of the Residents - - G. W. DRYLAND.
Boughsmondeley (*pron.* Buz-'i; a sequela of Brazen, from Sparrick's Row) - - - - - - - A. S. M. PALMER.
Adams, Hillstead } (Two Students of the Ordinary, or What-ho! type) - - - - C. F. SYMS, C. B. TICEHURST.
Mr. U. Phrates (a Radiographer with an Obsession) - - - - K. H. DIGBY.
Mr. Slieghper (an H. S., the Editor of the *Gazette*) - - - - H. A. SANFORD.
Snitch (of Hickman's Folly) - - - C. H. MILLS.
Snatch (of Salutation Place) - - - M. E. BALL.
Dan (a Newsboy) - - - - A. W. EWING.
Proxy (successor to Dropsey) - - - E. P. JOYNT.

and

Thomas Guy - - - - - - P. S. PRICE.
Nurse Globe, with Recitation (*suppressed*) - - - - - - H. J. HENDERSON.
Probationer Blib - - - - - W. W COOK.
Probationer Blab (a Suffragette) - E. B. HINDE.

and

The Hon. Camilla Fink (a Sister) W. H. TRETHOWAN.

Externs, Groans Off, Borough Ladies, Nuisances, Bonfires, Clerks, and Claques (in front), by Members of the Company.

Act I. The College Steps. *Time* - Nov. 5th, 1909.
Act II. The Front Quadrangle. *Time* - Dec. 31st, 1909.

An eminent dramatic critic has stated his opinion (probably basing it on Aristotle) that farce evades criticism: — "There are certain classes of play—for example, melodramas and farces—which always come out worse on paper than on the boards. The critic is generally tempted to describe melodrama by the ironic method—which is a perfidy—and to narrate the plot of a farce is, at the best, to decant champagne." But nevertheless, we must begin to decant Mr. Brookhouse's champagne, and it is real champagne—sparkling, exhilarating, at times intoxicating—and no insipid temperance imitation.

When the cork is drawn, or rather, when the curtain rises on the First Act, the scene is the College steps

viewed from the Warden's house. Proxy, the porter, is vainly attempting to lure Mr. Sleighper, the take-in H.S., from the bathroom; he is finally lured by the news of "a B.I.D. in the Front." Proxy discusses his grievances with one Dryland, the President of the Residents, and we begin to hear about a certain socialistic Dr. Victor Brazen, M.P., who, previously exiled from the hospital by the Governors, became "the triumph of Trafalgar Square and the Terror of Tower Hill," and is now about to become Dean at Guy's, and put his Socialism into force there. Meanwhile two students, Adams and Hillstead, stroll in and look for letters in the Porter's lodge; it seems they are both in love with Sister Fink, who is adored by everyone—Governors, Staff and Students, but will have nothing to say to them, who, as Proxy says, "are not even Registrars." A newsboy enters with the latest papers—the *Evening News*, the *Star*, and the GUY'S GAZETTE; Adams and Hillstead buy a copy of each, and learn with horror that the new Dean is on his way to the hospital. An interlude occurs when the adorable Sister Fink arrives on the scene with her attendant damsels—Nurse Globe and Probationers Blib and Blab. Needless to say, Sister Fink is in love with Victor Brazen, the Socialist Dean, who now enters, heralded by his *sequelæ*—Boughsmondeley, Snitch and Snatch! After inspecting his new kingdom through an ophthalmoscope of extraordinary appearance and size, Brazen proceeds to outline his scheme of a Socialistic hospital in a song:—

I shall strive to put, of course, Socialism into force,
Now I've suddenly succeeded to the Deanery,
And you'll stagger with surprise when you see a novel Guy's
Where I've swapped the men and altered all the scenery.
I will down the Golden Calf you have learned to call the Staff,
For I hear my mere election has unnerved 'em;
And the patients and the men shall be teachers now and then
In my modern Socialistic topsy-turveydom.

Students and nurses alike are terrified in anticipation of the new *régime*. They appeal to Sister Fink as to a rescuer, and she says—

"Leave it to me; my woman's wit so keen
Shall find a way to down this daunting Dean.
Bear up, brave boys, nor let your courage sink,
He'll be frustrated by the fearless Fink."

This *tableau* brings Act I. to an end.

In Act II. the Socialism outlined in the Dean's song has been in force for some weeks. The scene is the Front Quadrangle, looking from the Court Room, as we see by the familiar statue of Thomas Guy standing prominently in the foreground. After some delightful dialogue between Snitch and Snatch, Brazen enters, and proceeds to harangue the statue until it comes to life. They help Guy down from the plinth, and he is delighted to turn round and have a look at the hospital which he has not seen for ages. Catching sight of some nurses, Guy runs off to join them, and Brazen is left to transact some of the business of the hospital, which does not seem to be working very smoothly under Socialism. The nurses enter with specimens of their cookery class meals, and Brazen is beguiled into taking a fatal bite of cake. He is hurried off to the skiagraphic department, as he thinks "that bit of cake is certain to show on the screen."

Dryland now comes on, and explains that he is going to sing, which causes an immediate hurried exit of the nurses. He sings of an aunt, in whose will he had hoped to be remembered; but the good lady one day developed a vague pain, for which she consulted all our physicians in turn and without relief. Then she came to the conclusion that—

"There's no hope for me in medicine, I must go and visit Lane."
He was over in America, but still he didn't care,
For when he heard she'd called he simply *wired* my aunt from there.

But it was no good. She went "to Portland Place to see His Majesty Sir Fripp," who declared that "she was quite the finest auntie he had ever seen to date, but he much regretted that he couldn't operate." She went to see an ophthalmic surgeon,

But they told her he was revelling beneath some foreign skies,
And was only interested in a single pair of eyes.

Then she went

To the land where shams and shadows are inextricably mixed.

But all was unavailing, and she spent her entire fortune in the search for a cure, so that the nephew is left to lament—

"I shall never have her money when I'm laid upon the shelf,
I'm condemned instead to keep my neurasthenic Aunt myself,
And my only ray of sunshine is when twenty years have tracked,
She will get an Old Age Pension—if they don't repeal the Act."

Dryland's song over, Thomas Guy re-enters, and caps it with another, "Imitations," in which he takes off various members of the staff, to the infinite delight of everybody except each particular victim. Guy and Dryland go off together for some dinner, and Brazen comes on with a canker gnawing at his vitals. He is lovesick for the fair Camilla, who thinks he does not believe in love, as he is devoted to Socialism. It is the Dean's Dilemma—to decide between Love and Socialism. A toss of the coin decides for Love, and the next moment he is locked in his Camilla's arms. The curtain is now lowered for ten seconds to indicate the passage of ten hours, which brings the time to midnight on New Year's Eve. Dryland says:—

" . . . Hark! the old year dies;
Let's start the new with Thomas Guy's return,
And in our wont of twice one hundred years
Let's pile our faggots round his ancient face,
Master, return, let Guy's be Guy's again."

Guy is therefore helped back on to the pedestal, the bonfire is lighted, "three cheers for Thomas Guy" are called, and the curtain descends to the sound of "Auld Lang Syne," as students, staff and Socialists dance in a ring round the statue.

Such is the plot of "The Dean's Dilemma,"—when decanted. Comparisons, if odious, are quite inevitable, especially as Mr. Brookhouse, in two previous plays, has himself set a standard for comparison. That it is a high one is his own fault. Comparing "The Dean's Dilemma" with "Ortocure," the play of last year, what do we find? We find a simpler idea as the foundation of the plot in the newer play. The choice between Love and Socialism

is, moreover, an idea much more within the mental grasp of an audience than the somewhat recondite conception of "the aggrandisement of pathology at the expense of present-day clinical methods," which was the *motif* of "Ortocure." Hence the present play, apart even from the fact that it contains a "love interest," should make a more widespread appeal. With a simpler and more definitely constructed plot, Mr. Brookhouse has been content with simpler and more obvious topical allusions, which is all to the play's advantage from the acting point of view. In the theatre we do not wish to puzzle over too subtle jests, lest we should miss others that follow.

Perhaps it would be breaking a butterfly on a wheel to ask what form of Socialism proposes, or has ever proposed, to make every man a Jack of all trades, and the humours of a hospital under such conditions are sufficiently obvious to be tempting material for farce. But it must be noted that this element of Mr. Brookhouse's imaginary Socialism has no essential connection with the real plot: Brazen, apparently, remains Dean all the time, and Sister Fink does not doff her blue. Then, again, the familiar and effective device of bringing to life the statue —in this case of Thomas Guy—though it affords scope for some excellent farce, and for those imitations which by many will be remembered as one of the most completely funny parts of the play, does not definitely bear on the Love *v.* Socialism theme. It is these facts which, in our opinion, tend to make the second act a little disjointed, and rather a series of "turns" than a connected whole.

But it may legitimately be questioned whether a connected plot is required in farce, whether an abundant supply of jests and amusing situations is not far more important to its success. In these two respects—especially the former—we can have no quarrel with Mr. Brookhouse on the score of lack of generosity. In spite of the fact that the field for topical humour at a place like Guy's is necessarily limited, and had already yielded Mr. Brookhouse two rich harvests, he has again contrived to glean a wonderful assortment of jokes at the expense of everyone in general and anyone in particular. The three songs were all excellent, and in this connection we must mention the music to them composed by Mr. A. L. Gardner. We are indeed fortunate in having talent at the hospital which can not only write the play, but compose the music, for "The Dean's Dilemma" is, in the best sense, entirely a home-made affair. Mr. Gardner was a little unfortunate in that his music had to be sung by players of no great vocal powers, so that he had no scope for the composition of music simply beautiful in itself; but it must be admitted that his settings fitted the words very appropriately, and we hope he will have further opportunities of exercising his talent.

Congratulations are also due to Mr. B. H. Palmer, who, with the author, stage-managed the production; to Mr. A. S. M. Palmer, who was business manager, and to Mr. C. B. Ticehurst, who held the important post of property manager. Mr. Ticehurst's fireproof curtain, "Asbestas we can do it," caused a hearty laugh between the acts, and his bonfire at the *finale* was really a triumph in spectacular effects (short of Drury Lane). Mr. K. H. Hole did good service as accompanist on each evening.

The farce was, on the whole, well acted; Mr. B. H. Palmer had been unfortunate enough to have an attack of tonsillitis during the week previous to the production, and as a result he was not word-perfect in his part, and was playing under corresponding difficulties; but, under the circumstances, he made a wonderfully good thing of the Socialist Dean, and some of his bits of business one could not imagine better done. Mr. Trethowan made a very good Sister Fink, and had, we think, hardly enough to do. The part was surely worthy of a song. Messrs. Henderson, Cook, and Hinde as the nurses were excellent "nurses"; they were most conscientious in their display of ankles and fancy stockings; and in the second act Mr. Henderson's "sheath" costume was a thing to marvel at. Mr. Dryland has had so much practice at playing himself, that it is scarcely to be wondered at that he did so well in the part. Mr. Price, as Thomas Guy, in his immobility as a statue, and his inimitable imitations, deserves most hearty commendation. A special word of praise must be reserved for the Snitch of Mr. Mills, who put some of the most perfect little touches of realism into the part, and yet did not burlesque it. Mr. Ball, as Snatch, and Mr. Morton Palmer as Boughsmondeley, made him two worthy compeers; Mr. Joynt as Proxy, Mr. Sanford as the Editor of the Gazette (wearing a false nose worthy of Cyrano de Bergerac), Mr. Syms and Mr. Ticehurst as the lovesick students, Mr. Digby as U. Phrates, and last, but not least, Mr. Ewing as newsboy—filled minor parts with credit to themselves and considerable assistance to the general success of the play,

Altogether, Mr. Dryland, as President of the Residents, is to be congratulated on a very excellent production. Mr. Brookhouse's vintage for 1908 (if we may pursue our metaphor to the end) was of the first quality, and it is scarcely necessary to say that the play was received with torrents of applause on each of the three nights.

Gilbert and Sullivan Party.

During the week a party of ladies and gentlemen visited nearly all the wards in turn, and gave a series of most delightful quartettes, etc., chiefly from the Gilbert and Sullivan operas. The various items were performed with a smartness and assurance which said much for the organising abilities of Mr. L. C. D. Irvine, who acted as *impresario*, and for the loyal co-operation of his fellow-workers. The vocalists, the small string band, and the excellent work of Mr. Depree at the piano, combined to produce an artistic result considerably above the average expected at hospital ward concerts. In addition, no small dramatic talent was shown by several members of the party, suggesting that the performance of a complete opera would be quite a feasible project at Guy's.

The following ladies and gentlemen took part in these concerts:—Mrs. Oram; Misses Gladys and Janet Oram,

Moore, Hunt, Dresser, Tweddle; Messrs. Peall, Catto, Lobb, Mitchell, Oram, Kidd, Price, Hunt, Gardiner, Depree, Irvine.

The *répertoire* consisted of:—Choruses, Policemen's Chorus (Pirates of Penzance), "Carefully on tip-toe stealing" (H.M.S. "Pinafore"), Captain's Song (H.M.S. "Pinafore"). Sextette, "I hear the soft note" (Patience). Quintettes, "If Sophia I choose to marry" (Patience), "See how the fates" (Mikado). Quartettes, "Strange Adventure" (Yeomen of the Guard), Madrigal (Mikado), "Regular Royal Queen" (Gondoliers), Madrigal from "Haddon Hall," Quartette from "Merrie England." Trios, "A man who would woo" (Yeomen of the Guard), "I am so proud" (Mikado), "Faint heart never won fair lady" (Iolanthe), "Never mind the why and wherefore" (H.M.S. "Pinafore").

Luke and Cornelius.

The combined concert for these two wards was held on December 29th, in the Physiological Theatre, whither the patients were conveyed across the snow-covered park. The concert was arranged for Sir Alfred Fripp by Mr. Bertie Camplin-Smith and Mr. Owen Roughwood (of the Lyric Theatre). Mr. Leonard Chalk kindly brought the members of his orchestra from the Lyric Theatre, who opened the concert with a selection, and rendered valuable service throughout. A rich and varied programme had been arranged, and every item was thoroughly appreciated by a large audience. In the first place, we must mention Mr. Lewis Waller's recitation of Thackeray's "Cane-Bottomed Chair," which, we need hardly say, was encored. Other recitations were given by Messrs. Shiel Barry, Franklin Dyall, and William Deveraux. Miss Isabel Heath made her first public appearance as a vocalist in that stirring song "The Enchantress." Mr. W. H. Berry's humorous song was encored; others were sung by Miss Hilda Antony, Miss Bessie Abelson, Messrs. Arthur Hider, John Phillips, Alec Thompson, Redgewell Dancie, S. Walsh, Murri Moncrieff, and Charles Ross. Mr. F. A. Windeatt gave a violin solo, and Mr. A. Napper a humorous sketch. Half-way through the programme an excellent little one-act play, called "The King's Fairy Tale" (adapted from the French by Mr. Tom Heslewood), was presented, and met with much well-deserved applause. Mr. Tom Heslewood himself, as the cunning Louis XI., scored an unmistakable success, and scarcely less good were Mr. H. Le Grand, as the Royal Barber, and Mr. J. H. Irvine, as Gringoire, the ragged poet, who is wedded by the king to the fair young daughter (played by Miss Hilda Dick) of Simon Fourniez, a merchant, (Mr. Hubert Druce). Miss Maud Digan played the part of Nicole, Simon's sister.

Altogether a most enjoyable concert resulted from the combined efforts of all these ladies and gentlemen, and we wish to thank both the performers and the organisers. The latter are to be warmly thanked for their endeavours and heartily congratulated on their success.

Queen.

This began at 3 p.m. on December 28th, with local talent, songs by Mr. Kidd and cornet solos by Mr. Haycraft being much appreciated. Some excellent talent from Bright then appeared, brought over by the ever-ready R.M.O.B. Mr. Montgomery arrived breathless from a Christmas tree to sing "Put me amongst the girls," which warmed things up. The singing of Miss Hoare and Miss Davies also aroused much applause. Miss Julia Caroli then appeared on the scene with Signor Manrico Bacci, and Miss Madeline Royle as pianist. The two former gave a most delightful selection of old-world songs, each more appreciated than the last, while Mme. Guy d'Hardelot kindly accompanied. The "Keys of Heaven" duet was warmly encored. Comic relief was given by the recitations of Mr. Intz. The whole concert was a great success.

Patience and Samaritan.

This took place on Monday, December 28th. Amongst the visitors who were good enough to assist were Miss Kemp-Welch, who contributed to the programme a 'cello solo, and Misses Maxwell, Marshall, Sweet, Davies, Marsh, and Everett, who sang. Local talent was represented by Messrs. Levinson and Renton, who gave recitations, and Messrs. Montgomery, Irvine, Ticehurst, Ball, and Price, who sang. Mr. Jarvie acted as accompanist. The kind assistance of all these ladies and gentlemen combined to produce an excellent concert. The altered and improved appearance of the ward this year also deserved, and received, due comment from visitors who attended the concert.

Astley Cooper.

This concert was held on December 31st, as usual, and also as usual was accompanied by much applause and enthusiasm; as the evening went on almost every item was encored. The programme was entirely supplied by hospital men. Mr. Depree played a pianoforte solo—"Danse Creole" (Chaminade). Messrs. Peall, Irvine, Trethowan, Kidd, Adams and Riley sang, and Messrs. Montgomery, Dryland, Palmer, Price, and Mitchell gained much applause by their comic songs. Two of the Nigger Quartets—"Three Doughtie Men" and "I know a girl"—were also much appreciated. Mr. Renton gave some imitations, and for an encore recited Kipling's "Gunga Din" with considerable power. The concert ended with three cheers for the Sister and for Mr. Hinde, followed by the usual animated scene of clearing the ward.

Nurses' Entertainment.

This was held at the Nurses' Home, on December 30th, in the Dining Hall, and the sitting-room was decorated and arranged as a refreshment room. A long and interesting programme had been arranged. Perhaps the most popular items were a series of tableaux—"Between two Fires," "When the Heart is Young," and "The Cheat,"

after popular pictures; "Marguerite at her Spinning Wheel"; and "The Night before Christmas." Our only complaint against the tableaux is that those in charge of the curtain did not allow us sufficient time to enjoy them, which their excellence, and the trouble taken in preparing them, surely merited; and the most insistent demands for an encore were sometimes refused. The Night Nurses provided a very good "turn," described as a National Café Chantant, representing various countries, in which Nurse Foxon sang "Two o'clock Tea"; Nurses Ball and Maycock as Sambo and Dinah were encored in their clever song and dance; Nurse Allen, as a most imposing Red Indian, recited "Seeing Things at Night," and Nurse B. Miller, with the chorus, sang "My Toreador," with great effectiveness.

A little play called "Three Suffragettes," and incorrectly described on the programme as a "tableau," was next presented. Loud cries for "Author" at its close revealed the fact that it was written by Miss Newton, of Ipswich (formerly Sister Enid). The little play, although somewhat sketchy, and obviously written by an inexperienced hand, was in many ways a clever bit of work, and was very well acted by Nurse Lloyd as the militant suffragette, Nurse Nixon as her credulous sister, and Nurse Du Sautoy as her recalcitrant niece.

Nurse Bodenham recited some topical verses entitled "The Lambs."

One of the most popular items on the programme was the last, consisting of some songs and choruses from "Miss Hook of Holland." The solo part was performed by Nurse S. Lewis, whose fine voice had previously been heard to advantage in "Il Bacio." The singing, dancing and "make-ups" were all excellent, and deserve most hearty commendation. It should be added that Nurse Collingwood carried out the duties of accompanist.

After the concert the room was cleared for the impromptu dance, which has become an important and popular feature of this annual function. Three ringing cheers for the Matron, and the singing of "Auld Lang Syne," brought to an end a very pleasant evening.

Mary.

A very enjoyable concert was held on Monday 28th, almost the whole programme being supplied by local talent. The proceedings commenced at 3.30 with the Gilbert & Sullivan selectionists who, for nearly an hour, gave of their best, to the great enjoyment of those present. Tea was then served, and after twenty minutes' interval the second half of the programme was gone through. Miss Rowe sang some catchy little ditties, and Miss Moore gave two violin solos. Nurse Lewis, and Messrs. Johnston, Verver, Searle and Henderson sang songs appropriate to their separate and particular styles, Nurse Mawson kindly acting as accompanist for them.

On New Year's Eve a most delightful entertainment was arranged by the kindness of Messrs. Alfred Bellew and Ernest Stock. These gentlemen came up with a large party, including Miss Marie Löhr, Miss Stella Campbell, Miss Iris Hawkins, Miss Starling, and several of the children from "Pinkie and the Fairies," and also Mr. Bellew's juvenile troupe, "The Romps." Space will not allow of a detailed account of the whole concert, but mention must be made of the graceful and dainty "stockinged feet" dancing of Miss Iris Hawkins; the sweet singing of Miss Starling, who, besides other things, sang her song "Daffa-down-dilly" from "Pinkie and the Fairies"; the Misses Cohen, who sang a duet and also solos; Miss Burgess, a little lady who recited "The Bishop and the Caterpillar" with great art and talent; and Miss Yorke, who sang "Humpty and Dumpty," and "Up in My Balloon." Miss Löhr and Miss Campbell arrived with armfuls of large bunches of violets which they graciously distributed to the patients, having a little word of greeting for each one. These ladies had unfortunately to leave early, and did not want to sing, but Miss Löhr was eventually persuaded to do so, and seating herself at the piano during the tea interval, charmed the audience with a dainty little song which was all too short. She was so disappointed at having to leave early, that she asked to be allowed to bring up a party during the first week of the New Year, a request which was acceded to with alacrity, conditional to the sanction of the Superintendent and Matron.

The Romps proved to be a merry party of talented young people, who seemed to get as much pleasure out of performing as the large audience did by watching them, and the rounds of applause fully testified to the success of their efforts. The proceedings terminated with a short speech, in which Dr. Fawcett thanked the performers on behalf of the patients, nurses and visitors for a most enjoyable afternoon.

Addison.

A most successful concert was held on Tuesday 29th at 4 p.m. Proceedings were opened by Mr. Reginald Mountfield, who fully justified his title of "musical humorist," and who succeeded in thoroughly amusing both the patients and visitors during his sixty minutes' sojourn at the piano. His performance having ended, tea was served, and after fifteen minutes' interval the second half of the programme was entered upon. For the success of this, thanks are due to Miss Ruth Clarkson, whose violin playing was a treat to everybody who had the fortune to be present; Miss Gwen Baker who sang several tuneful little songs, in a very charming way, and Mr. A. L. Gardner, who most kindly and ably acted as accompanist. The audience, particularly the patients, also received with acclaim and shouts for more, the efforts of Messrs. Verver, Doll and Henderson in the vocal line, and vociferously demanded "Put me amongst the Girls," before the conclusion of the concert, the demand being gratified by the last-named gentleman. The National Anthem at 6.30 p.m. brought to a close a most delightful afternoon.

Christmas Trees.

Large and resplendent Christmas trees were a feature during the week in Charity and Martha wards. As usual, a number of little delighted guests from other wards

were invited to join in the fun of the distribution of presents from the trees, which took place in Charity on December 26th, and in Martha on December 28th. In each case, the approach of Father Christmas was heralded by the Nigger Band, who refused to go home till morning with the utmost pertinacity. The aged and popular gentleman himself, whose identity is such a source of interest to the patients, was accompanied by a little patient from the ward dressed as a fairy. In Charity Ward, the serious business of distributing the presents was preceded by a clever ventriloquial and marionette entertainment.

Out-patients' Tea.

This was held, as usual, on Christmas Day, from 2 p.m. and onwards. The rebuilding of the Out-patient Department added to the difficulties of those who were responsible for the arrangements, but the difficulties were successfully overcome. In one way, the building alterations were an advantage, as they enabled Father Christmas at each end (Messrs. Leeming and Solomon) to make his entrance dramatically through a hole in the wall—a feat accompanied by an accession to the already deafening clamour of excitement such as we had scarcely imagined possible. But a reserve of enthusiasm was still in store for the arrival of the Niggers and of the Cinematograph. The arrangements worked without a hitch, and Sister Out-patients, Mr. Martyn Lobb, and their many helpers, are to be congratulated on the success attending their efforts.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

A Wedding Presentation.

DEAR SIR,—Will you please convey my most sincere thanks to all those Guy's men who have combined to present Miss Bingham and myself with such a handsome wedding gift, as I shall find it impossible to thank them individually.

The delightful set of Georgian table-glass will be a daily reminder to me of their good wishes, and of the fact that not all the official severity of the Dean can repress their kindly feelings.

I should like to take this opportunity of saying how great a pleasure it has been to me to work at Guy's during the last five years, and how easy that work has been, owing to the unfailing good will and loyalty of the men. I have appreciated their consideration most highly, and am deeply touched by this further proof of their regard.—Believe me, dear Sir, yours very sincerely,

HERBERT L. EASON.

24, St. Thomas's Street, S.E.,
December 18th, 1908.

Reviews, etc.

The price of books submitted for review should in every case be stated.

The Theory of Ions. A consideration of its place in Biology and Therapeutics. By William Tibbles, M.D. Chicago, LL.D. pp. viii. and 131. (Messrs. Rebman.) Price 2s. 6d. net.

According to the Ionic Theory, some of the molecules of an electrolyte are dissociated into two or more parts, called ions, which have an independent existence, and carry opposite electric charges. By the movement of these ions, when placed in an electric field, the electrolyte has the property of conducting an electric current, its conductivity being proportional to the number of ions present, not to the number of molecules. The substances that are so dissociated are salts, acids and bases. This theory in its proper place has been exceedingly useful, in spite of at least one fundamental objection, namely, the large absorption of energy which should take place when the mutually attractive positive and negative parts of the molecule are separated in being converted into independent ions. Such absorption of energy is not observed when an electrolytic solution is formed.

The author of this little book, however, appears to treat all chemical change as ionic. Moreover, holding the view that dead matter is gradually transformed to living matter by a process of evolution, he argues that ionised matter may occupy an intermediate position between dead and living matter, since in it, as in living matter, chemical and energy transformations are taking place. Accordingly, after an introduction on the constitution of matter, dissociation and formation of ions, he discusses the functions and influence of ions in physiological processes. Then in the fourth chapter, starting with carbon dioxide and water, which are, according to him, dissociated in the leaves of plants by sunlight, to CO, O, OH and H ions, he constructs carbohydrates, fats and proteins. This chapter is of very little value, except as an account of the constitutional formulæ involved, for there is no experimental evidence of the formation of these substances by ions, which he assumes. The fifth chapter, however, on the "Influence of Ions on the Organism," is excellent. It is founded almost entirely on Paul's "Physical Chemistry in the service of Medicine," to which numerous references are given. The subjects dealt with include the constitution of colloids, (sols and gels), the influence on them of positive and negative ions, absorption of substances by the lipoids of the cells, and the pharmacological effect of various ions. The sixth and last chapter deals with oxidation and immunity.

On the whole, the chief fault of the book is that it is too condensed, with the result that the style is didactic, and the meaning not always clear; but in spite of a few inaccuracies, the book is well worth reading, if only for the sake of chapter five. Many of its readers, however, will not agree with the author in his view of the fundamental principles of life.

Lectures on the Pathology of Cancer. By C. Powell White, M.A., M.D., F.R.C.S. (Sherratt and Hughes, Manchester University Press.) Price 3s. 6d. net.

These lectures were delivered in Manchester in 1908 by the Cancer Research Fellow on the Foundation due to the beneficence of Mrs. Pilkington. They do not profess to contain the whole pathology of cancer, but deal with certain points which have particularly attracted the attention of the lecturer, who now returns to the subject with which he dealt in the Erasmus Wilson Lectures six years ago. The interval has evidently been spent to very good purpose, and the present work is conceived with an admirable breadth of view. In the third part—"Causation"—the author goes directly to the essentials of the problem. To discuss the share taken by embryonic residues, or the Smith-Jones' bodies, or irritation, or tissue tension—a very Mesopotamia in carcinology—or the unnatural habits of leucocytes and what not in the "causation" of cancer, must be for the most part an idle occupation until one has a much clearer conception of what a cancer is and how it has its being. "The problem of cancer is the problem of growth. When biologists can tell us what are the influences which determine the form and size of the living organism, then pathologists will be in a position to determine more exactly the nature of tumours." Pending the solution of the simple problem as to how any animal organism comes to have its own definitive form and function, it is the business of the pathologist to investigate cancer in all its aspects so as to clearly ascertain the data which will have to fit any solution. The co-ordinating mechanism on which the entity of an organism rests is obviously defective when tumours arise. Following this conception, the author regards a benign tumour as "an asexually produced descendant which lives parasitically in the parent organism;" a malignant tumour, on the other hand, "is not a distinct entity in itself," but "is a colony of cells, and the cells themselves are individuals." Considerations such as these must lie at the root of our conception of what a cancer is. The author wisely makes no attempt to formulate any hypothesis as to the reason why cells break away from the polity of the organism.

The earlier part of the book is occupied with much less satisfactory stuff, and much attention is given to the classification of tumours. Properly throwing overboard the embryological classification as "unscientific and useless," the author propounds an elaborate scheme based on the identification of the tissue from which they arise by their histological structure. The first characteristic of tumours to which the author draws attention is that they are atypical in growth: is there not a consequential inference that many tumours would so little resemble normal tissues that it would be impossible to place them with certainty in any category of such a classification? To realise that this is actually the case is an important step in our consideration of tumours. To arrange tumours on a pigeon-hole system applicable to beetles or postage stamps is not only entirely inconsistent with the fundamental conceptions of the nature of tumours, as to which Dr. Powell White is clear enough, but it is practically very inconvenient as well. Even the main groups of Dr. Powell White's classification (page 6) are not free from objection. Passing by the question, which is perhaps still an open one, as to whether the ordinary ovarian or testicular dermoids are tumours at all, in the same sense as is a carcinoma of the breast, the identification of histiomata (tissue tumours) with benign, and cytomata (cell tumours) with malignant, growths involves assumptions with reference to the relations of the parenchyma and stroma which are, in the present state of knowledge, hardly justifiable: as the author himself points out (page 26) these groups are not definite. "A classification," says he, "should always be based on facts and not on theories:" where, then, did Dr. Powell White get the classification which he gives, and which involves many assumptions far beyond the range of microscopic "facts"? A classification of some kind is of course useful in helping us to keep our data in orderly mental array, but the classification of tumours is a matter of quite subsidiary importance, and it really does not much matter on which system of filing our data are arranged—each is the best to the person who uses it, and all of them are very liable to become a horrid incubus. We also note with regret that Dr. Powell White pays undue attention to his labelling, and is not altogether free from the prehistoric superstition regarding a definitive nomenclature.

The book is a credit to the publishers, though we do not understand the free use of capitals, and the illustrations are excellent within the limitations of microphotographs. The price is extraordinarily low, so that no one has any excuse for not reading one of the most thoughtful and stimulating contributions to recent pathological literature.

Change of Address.

J. F. Young, M.B., B.S., from Guy's Hospital, to Johannesburg Hospital, South Africa.

Captain Brook Churchill, R.A.M.C., from Agra, India, to Dilkhusha, Lucknow, India.

J. Sephton Cooper, M.A., M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., from Guy's Hospital, to Rossendale, Clitheroe, Lancs.

Walter R. Wood, L.R.C.P., M.R.C.S., L.D.S. Eng., from 28, Old Steine, Brighton, to 1, Brunswick Court, Brunswick Place, Brighton.

C. A. L. Mayer, M.D. Lond., from Guy's Hospital to the French Hospital, Shaftesbury Avenue, W.

Lieutenant F. A. Barker, M.B., I.M.S., to the 33rd Queen's Own Light Cavalry, Secunderabad, India.

H. N. Greaves, M.R.C.S. Eng., L.R.C.P. Lond., from Guy's Hospital to Georgetown, Demerara, British Guiana.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Appointments.

Civil.

BARTON, T. H., M.B., B.S. Lond., has been appointed District Medical Officer of the York Union.

HOWARD, C. R., M.D. Camb., has been appointed District Medical Officer of the Basford Union.

MAYER, C. A. L., M.D. Lond., appointed Senior R.M.O. at the French Hospital, Shaftesbury Avenue, W.

PERKINS, J. S. STEELE, B.A., M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., has been appointed Hon. Anæsthetist to the Royal Devon and Exeter Hospital, Exeter.

Naval and Military.

Fleet-Surgeon PERCIVAL M. MAY, R.N., is appointed to the *Hannibal*, Staff-Surgeon C. R. NICHOLSON, R.N., to the *Drake*, Staff-Surgeon J. C. G. REED, R.N., to the *Vulcan*, Surgeons P. F. MINETT, R.N., to the *Tamar*, R. WILLAN, R.N., to the *Barham*, and G. CARLISLE, R.N., to the *Sealark*.

Captain J. MATTHEWS, R.A.M.C., is appointed expert in Ophthalmology to 4th Division (Quetta), and Lieutenant C. H. DENYER, R.A.M.C., expert in Dermatology, to the Lucknow Division, India.

Captain J. H. HORTON, D.S.O., M.B., I.M.S., attached to the 14th Murray's Jat Lancers, to hold civil medical charge of the Bareilly district in addition to his military duties.

The under-mentioned to be officers whose services will be available on mobilization (dated December 23rd, 1908).

2nd London General Hospital:—To be Majors: WILLIAM HALE WHITE, GEORGE NEWTON PITT, LAURISTON ELGIE SHAW, and CHARTERS JAMES SYMONDS. To be Captains: WILLIAM ARBUTHNOT LANE, LOUIS ALBERT DUNN, CHARLES HERBERT FAGGE, JOHN FAWCETT, and ROBERT PUGH ROWLANDS.

3rd Western General Hospital:—To be Captain: THOMAS MORRELL THOMAS.

Notice.

His Majesty's Indian Medical Service.

A competitive examination for not less than eleven appointments to His Majesty's Indian Medical Service will be held at the Royal Army Medical College, Millbank, S.W., and at the Examination Hall, Victoria Embankment, London, on the 25th January, 1909, and five following days.

Copies of regulations for the examination, together with information regarding the pay, retired pay, etc., of Indian Medical Officers, can be obtained on application to the Military Secretary, India Office, London, S.W. Application for admission to the examination, with the necessary certificates, must be sent so as to reach him on or before the 12th January, 1909.

Papers by Guy's Men.

A Prospective Cure for Elephantiasis. By W. Sampson Handley, M.S., M.D. Lond., F.R.C.S. Eng.—*The Lancet*, 2nd January, 1909.

The Surgery of Rectal Stenoses. By Lawrie McGavin, F.R.C.S. Eng.—*The Clinical Journal*, 6th January, 1909.

Acromegaly, with Illustrative Cases. By Guthrie Rankin, M.D. Glasg., F.R.C.P. Lond., &c., and R. O. Moon, M.D. Oxon., M.R.C.P. Lond. (Illustrated).—*The Lancet*, 2nd January, 1909.

A Case of Fractured Clavicle: A Case of Sarcoma of the Breast: Operation. No recurrence at the end of Five Years. By Ralph Thompson, Ch.M., F.R.C.S. Eng. *Medical Press and Circular*, December 30th, 1908.

An Address on Arthritis Deformans (Osteo-Arthritis: Rheumatoid Arthritis): With a Notice of its Surgical Treatment. By A. H. Tubby, M.S. Lond., F.R.C.S. Eng. —*The Lancet*, 26th December, 1908.

On Tracheotomy. By F. Meadows Turner, B.A., M.D. Camb.—*The Practitioner*, January, 1909.

From the Gazette's Special Pathologist.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Postal Orders to be made payable to Mr. C. H. WELLS.

H.L., MANCHESTER.—This breast contains an encapsuled Adenofibroma, and shows no evidence of a malignant growth. The gland presents chronic inflammatory changes only.

H.L., MANCHESTER.—We find no evidence of a malignant growth or tubercle in this specimen It is composed of dense fibrous tissue and mucuous glands, with much inflammatory change. It is very vascular in places, with thin-walled dilated capillaries. We regard it as a chronic inflammatory process. PATHOLOGIST.

Periodicals received. — The Hospital; The Clinical Journal; St. Bartholomew's Hospital Journal; Prescriber; St. George's Hospital Gazette; Ceylon Medical Students' Gazette; South African Medical Record; Calcutta Medical Journal.

Sport.

Rugby Football.

GUY'S v. CATFORD BRIDGE.

This return fixture was played at Honor Oak Park on Saturday, January 2nd. The ground was scarcely fit for play, but Messrs. Stringer and Crook are to be congratulated on fulfilling the engagement, under conditions the reverse of easy, rather than disappoint the large hospital following who gather weekly to witness the matches, and who look forward to this particular match with more than ordinary interest. Very few first team names were among those who did duty for the hospital, while Catford had endeavoured to put their best side in the field, the only notable absentee being Geo. Helder.

Catford went off at a great pace; they had some very heavy, and, be it said, somewhat ancient players in their pack, who seemed determined to force the pace while their "wind" lasted; their rushes were very powerful, and, for a time, Guy's had to play a purely defensive game. From one of these bursts, touch was found close to the line, and from the throw-out W. Helder fell over with an unconverted try. Gradually the visitors' energy became less, the heavy ground and the fast pace was too much for them. Guy's improved, and, playing a much more scientific and open game, assumed the aggressive. When settling down nicely, Digby was badly hurt, and though he pluckily tried to play on, it was quite impossible, and he had to leave the field. Lacey came up among the "threes," and Glendining went back. Just before half-time, a long rush, with the ball at his feet, by Medlock, saw that player gain a well-deserved try, Stokes goaling. Thus, at half-time Guy's led by 5 points to 3.

For a bit in the second half Catford pressed, but it was a last effort; for the rest of the game Guy's were always "on top," their halves playing well together and opening up the game constantly. Monaghan sustained a nasty crack on the forehead, from a collision, but he played better than ever after. Stokes had hard luck in being pulled down just short of the line, and then a good bout of handling, in which the back division each had a share, enabled him to touch for a try, which the same player could not add to. Tooth on the other wing had one or two opportunities, but his pace was not sufficient. Lacey then made two fine runs, but held on a little too long, with Stokes well placed. The ball was so difficult to hold, much more handle, that accurate passing was at a discount, and the hospital backs did well to bring off so much good work. Stokes had numerous chances, but something went wrong each time the final pass was made, or rather attempted, and it was left to Medlock to score from a scrum, close in, an unconverted, and what proved to be the third and last, try of the match. Final score: Guy's Hospital, 1 goal 2 tries (11 points); Catford Bridge, 1 try (3 points). Team:—

GUY'S.—G. E. W. Lacey (back); L. Stokes, W. E. S. Digby, G. C. Covell, F. Tooth (three-quarters); P. J. Monaghan, A. H. Medlock (halves); A. H. Crook, C. G. Sprague, A. Seabrooke, E. L. Elliott, V. Glendining, H. R. Danby, G. B. Cockrem, L. Irvine (forwards).

Referee: Mr. G. Harnett.

REMARKS.—All the forwards played well, especially Crook and Sprague; the latter was quite at his best, and worked untiringly. Medlock was the most prominent man on the field, and Monaghan made a very efficient partner; he got through a very hard afternoon, showing pluck and resource. Tooth appears to lack pace, and is slow off the mark; Covell played a safe game, and Lacey filled the left centre position very efficiently. Stokes' passes came awkwardly, and he scored one try very neatly, and with a little luck would have added two or three more.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Birth.

MAYSTON—On January 4th, at 8, Pier Road, Erith, the wife of Robert W. Mayston, M.D. Lond., of a daughter.

Marriages.

HIGGINS—CALLIS.—December 24th, at St. Mary's Roman Catholic Church, King's Lynn, by the Rev. Father Eales, Patrick Charles Higgins, M.R.C.S., L.R.C.P., of Devonport, Tasmania, eldest son of the late Patrick Charles Higgins, Esq., of Bombay, to Daisy Grace Callis, youngest daughter of Mr. and Mrs. E. Callis, of Bartholomew-street, Newbury.

MOLLISON—WALKER.—On December 19th, 1908, at Wimbledon Parish Church, by the Rev. W. Weston, Vicar of Ewell, assisted by the Rev. Allen Bell, Vicar of Wimbledon, and the Rev. F. C. Macrutt, Vicar of St. Matthew's, Surbiton, William Mayhew Mollison, M.A., M.C. Cantab., F.R.C.S., Warden of the Guy's Hospital College, only son of W. N. Mollison, Esq., senior tutor of Clare College, Cambridge, to Beatrice Marjory, eldest daughter of the late William Walker, Esq., and Mrs. Walker, of Fairview, Wimbledon.

Deaths.

FENN—On December 20th, 1908, at 27, Henley Road, Ipswich, Charles D. Fenn, M.R.C.S. Eng., L.R.C.P., late of Park House, Diss, in his 63rd year.

KNOTT—On December 28th, at Liz Ville, Elm Grove, Southsea, Charles Knott, M.R.C.P. Edin., M.R.C.S. Eng., in his 65th year.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

IT is always of interest to hear of the progress made by a department devoted to the "latest methods" of treatment of disease. The number of patients in regular attendance at our Light Department is increasing rapidly, and it is quite evident that the time is not far off when the Light Staff will be unable to cope with them, bearing in mind the very few years this branch of the hospital has been established. The situation of the department (on the third floor of the old building), the very imperfect accommodation (in a draughty passage) for the patients who are awaiting treatment, and the small size and awkward shape of the rooms, are all matters which require remedy in the form of rebuilding or removing. The opportunity for the observation of Light treatment by students is hence at present very limited, and as the results of treatment are very satisfactory, this is a pity. Many a time students at Out-patients' are told that such-and-such a patient is to be sent to the Light Department, and have to be contented with that information, having no opportunity to follow the case up and observe the result.

IN connection with the Light Department, readers of the GAZETTE may remember a short article by Dr. Iredell in the issue of November 28th, concerning the use of radium upstairs. Dr. Iredell informs us that the specimen of radium referred to in his paper has now been in use for four months, and that the results of its use in malignant disease have been very encouraging, thus confirming what was reported then. Of course it is early to talk of "cures" in so short a time, but in several cases malignant glands and tumours appear to have entirely disappeared, and in other cases large nævi are clearing up. Of special interest are three inoperable cases of recurrence after removal of carcinomata of the cervix uteri which are improved greatly under treatment by radium; these cases are of course still in attendance.

WE understand that the price of radium since our present piece was bought, at the cost of several hundred pounds, has gone up already, so that we at Guy's have been fortunate in obtaining what is the finest specimen in any English Hospital. We look forward with interest to a report, which we hope to publish in the GAZETTE, on treatment by radium, after twelve months' use of the new material in the Light Department.

THE new buildings and additions to the Out-patient Department in Great Maze Pond are

proceeding rapidly; and as soon as each separate portion is completed, it is being put into use. We hear that within a few days the new "Back Surgeries" will be finished, and that work will be transferred there. A new archway has also appeared in the Out-patients' Department just beyond the Dispensary leading out into these Surgeries and into the new Ophthalmic Department.

WE know that it only comes once a year, and that it is finished with, and that everyone is starting fresh work and has no time to think any more about it; that when it comes it brings good cheer, but that when it has gone it should be forgotten; that the two last issues of the GAZETTE have mentioned nothing else, and that we ought to let it rest, and not disturb it in "Passim"; but we insist, once more, for the very last time. More than a word of thanks is due to Messrs. Ash & Co., who printed the Guy's Greeting Cards, free of charge, for the festive season we are hinting at, and to Miss Smith, of the Matron's Office, and Mr. P. Mills, of the Library, for selling them. Their combined efforts resulted in a gain to the hospital funds of over £28, an increase of over £4 above the amount for the previous corresponding cheerful season, and the thanks of the hospital are theirs.

APPLICATIONS for printed editions of the two plays, "The Spoils of Victory" and "The Dean's Dilemma," have been arriving daily, but before the actual printing and publishing are commenced it is hoped that a great number more will have come in. The splendid style of binding and printing of "Ortocure," which provoked such enthusiasm last year, were due entirely to the large number of applications for copies received, and therefore it is hoped that those who intend to obtain a copy will apply as early as possible. As no doubt many people, who are not regular subscribers to the GAZETTE, may not hear of this edition till later, we hope our readers will make the facts known. Notices are being sent to many members of the Clubs' Union who are not subscribers to the GAZETTE, and who are known to have seen one or other of the plays; but still there are likely to be many who will not hear of the matter at all except by word of mouth.

Now that the second and important half of the season has arrived, interest is seriously turning towards the Rugby fifteen and their doings. It seems that we have drawn a bye in the first round and go straight into the semi-final, where we are to meet our most formidable opponents. The performance of our team last Saturday at the Rectory field was splendid. Stringer and Stokes ran right through the Blackheath defence time after time, and with last week's form our team's prospects of regaining the Cup ought to be very good indeed. Our rivals, however, have been showing excellent form also, and there should be some good Cup-ties this year.

ONCE again it is the pleasant duty of the GAZETTE to congratulate a Guy's man on International honours. H. Archer, who played for England at Cardiff last week, has long shown promise of attaining the highest distinction, and according to all accounts was not slow to prove that his selection was a wise one. He shares with six other English forwards, as a reward for the good form they showed, the distinction of being again selected, the second cap being given for the coming England v. France match at the end of the month.

A SUCCESSFUL candidate sends us the following amusing examination tale:—

SCENE.—*At the recent examination in Clinical Medicine for the L.R.C.P.*

A candidate is told to "listen to that patient's heart, and just tell me what you think of him."

Patient (who is evidently an "old hand" and a sportsman, after looking cautiously round to see if examiner is within hearing and observation) remarks: "I'll help yer, doctor, I'll help yer." (Pause, and then significantly): "I'm a very poor man, sir," and then adds, "I've got a *diabolic* murmur, 6th rib, ½-in."

Candidate successfully describes an "aortic regurgitation, with heart dulness to 6th rib and ½-in. outside nipple line."

Afterwards he congratulates himself on the fact that he was not led astray by a "bruit de diable."

TALES about patients are always with us, and are frequently very amusing. The following is

an account written by a small boy of his experience in a dentist's chair under gas:—

"The sensation is very queer, but it is soon over. You dream very many things, and *very* funny things. I will just give a few facts of my dreams. At first I felt as if I were sinking down in the earth, then I found myself in a cave with 1000's of little beings generally known as demons, which were very fat. Then one demon eat another and that one another, and another one eat that one and so on untill only a few *very* fat ones were left. These turned very thin and very tall untill they turned in to strings and then (somehow or other, a way which I can't remember) they multiplied untill there were 1000's of strings (very long). Then my head which jumped of my sholders, jumped on top of them, and then snakes appeared and hooked on to each other and formed (altogether) a sort of large tassel. Then the tassel got smaller and came to a tassel of a railway carriage blind, and all of a sudden I was in a railway carriage. This, however, woke me up, and I was in the dentist's chair with the tooth extracted."

SURGEON-GENERAL A. M. BRANFOOT, I.M.S., has kindly consented to take the Chair at the Annual Dinner of the Guy's Hospital London University Club. The date has been definitely fixed for Wednesday evening, January 27th, at 7.30 p.m. Any members of the club, who have not already done so, are requested to inform the Secretaries by Tuesday morning at the latest if they intend to be present.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

H. B., MITCHAM.—After forty-eight hours' incubation only two colonies of the staphylococcus albus developed on this media. If any antiseptic substance had been used for treatment, this would very probably inhibit the growth of any organisms that were present in the discharge. Micrococci, other than staphylococci, were observed in the films of the previous specimen.

H. L., MANCHESTER.—This growth is a squamous-celled epithelioma, showing the usual cell-nests and keratinisation. The gland is very extensively infiltrated by a growth having similar characters.

PATHOLOGIST.

My Cango.

MANY tobaccos have I smoked, and the odds are that I shall smoke many more. For the taste of the weed is like the reading of a good book, it calls for more. The man that smoked his best brand and went not out of his way to find a better was no true enthusiast. He lacked the inquiring, critical, elucidating faculty which should be inherent in every real Nicotian who belongs to the aristocracy of smoke. So, though I have tasted Cango, though I have seen the Kaaba, and am become a Hadje among smokers, I still go on searching for other brands, sampling new growths, testing new leaves, and burning new sacrifices at the altar of the goddess to compare with the ideal, to find if there be more Meccas than one, or if there be other Kaabas which the faithful might adore.

Years ago I pilgrimaged to Mecca, an unwilling wanderer. Cavendish was good enough, and the youthful smoker is ever a conservative. The radicalism that dares to postulate the existence of other tobaccos than the one which he smokes, the heresy that ventures to assert that these others may be equal to, or better than, his brand, he repudiates. Once having found comfort and consolation in this or that mixture, he accounts it an inane and rash experiment to begin upon another variety. "There is but one God, the Mighty, and Mahomet is His prophet"—there is but one tobacco, and So-and-So puts it up in silver paper packets, or in more or less artistic tins, for the benefit of the faithful. Whoever endeavours to impugn its excellence, let him be anathema marantha. I held with Cavendish, and, as the young smoker, like the proselyte, is the most prejudiced of persons, I looked askance at anything else. Cango—it was a name, a name only. I had never tried it; I had no wish to try it. Unwilling, expostulating, denying the right of anyone to lead me, I pilgrimaged to its shrine, to find there the holy stone and the very quintessence of the true faith.

It was on the slopes of Signal Hill that I received the light. Authorities tell us that it really does not much matter where we receive the light. I have my own thoughts on the subject. Adaptability to a new religion, to a new taste, is influenced by environment. Missionaries know it, and philosophers have been fully conscious of it. Over the wine and the walnuts you may be inclined to try your friend's brand, which, outside in the street, amidst the rattle of cabs and the creaking of motor-bus and dray-carts, you would have scorned to sully your pipe with. With the dregs of your own mixture in the pouch, and with no means of renewing your supply, you will gratefully grasp the opposition mixture, and even enjoy it between the puffs. Mood and environment, with necessity as a colophon, are the factors which count most.

I had all three in my favour. There was necessity—hard, cruel necessity—to force me. Not a shred of Cavendish remained in my knitted woollen tobacco-bag—the gift of Tante Sarah Slabbert, now (like her namesake) presumably with God. Below me lay the old Malay graveyard, with its broken-down wall and its tall agaves

showing pillar-like against the sky-line. A congeries of slum streets spread out beyond, to be lost in the foreshore, where the Woodstock Beach stretched white and silver in the sun. Beyond that the bay, blue and beryl, dotted with a few fishing boats and one huge transport, that poured dense smoke towards the heavens, as if to mock my idle pipe-bowl. Farther than that the white sand of Blauwberg, where the fight was fought between the Company's men, under stubborn old General Janseens, and the regiments under Lord Caledon—the level line of Milnerton, with the black track of the new railway running across the marshy wastes of the Zout River. A cloudless September day, with the mountain slope in the full bloom of its spring verdure—that was the environment. For the mood there was a heartfelt thankfulness at the thought that the office could shift for itself that afternoon, and a sense of satisfaction that the wire frame held at least three good botanical specimens, both of them tempered with a feeling of exasperation because my pouch was empty. Smokers will readily conceive which was the predominating mood. The Malay graveyard below might teach the frailty of human hopes, the battlefield in full view might point a moral as to the instability of human ambitions. Together they might have inculcated patience, resignation, the lesson to put up with the present in the assured conviction, so crisply expressed by one of South Africa's greatest men, in his motto, "Alles zal reg kom." But under such conditions even the enthusiastic botanist, if he be a smoker, is not inclined to learn from cemeteries or from battlefields. A fill of tobacco is more to him than sermons in stones, or object-lessons in stricken fields. Curse the emptiness of Tante Sarah's parting gift, and mingle with your imprecation the hope that dried mimosa leaves, with a pinch of veld dagga, might do to supply the deficiency.

The biblical good Samaritan came with wine and oil, and, if memory errs not, with bandages and an ass. Mine, in the shape of a strolling Tommy, a unit of the division quartered near the old Amsterdam battery, brought better. He possessed a well-filled pouch, a stuffed pipe, and a charitable soul. But he wanted a match.

Golden yellow shreds, flakes, scales that in the vivid sunglow gleamed dully, like dry moss on the sandstone. Flakes that exhaled a faint, scarcely perceptible, nicotian odour; shreds that crumbled easily into the pipe-bowl, making a perfect fill, through which the flame drew curls and crescents of blue-white smoke. I had often seen it in the shop windows, in linen bags, labelled, "Cango—best dry, yellow; all this lot half-a-crown." Once, even, I had entered and asked the tobacconist what it was like. "A lot too mild," had been his answer. "Gi'e me a strong baccy, sorter blend between Magaliesberg and old ship." But necessity approved the trial, and my khaki Samaritan was enthusiastic. According to him it was a weed that must have grown in the Garden of Eden, and which Adam, in his haste to clear out of Paradise, had forgotten to take away with him, leaving it for the men of Cango to discover and utilise. A point in its favour was its cheapness. "Ah can buy a pound for less than you'd have to pay for a hounce," said the Samaritan, with enthusiastic exaggeration. "First ah mixed the stuff wi' plug, but now ah smokes 'm neat."

There are two individuals to whom a man owes undying gratitude—the one who introduces him to the beautiful, and the one who introduces him to good tobacco. I will not extend the catalogue by including the man who, according to Francatelli, is worthy of the highest praise, namely, he who first enables us to taste an ideal soup. Soup is an excellent thing, and I am willing to humour the king of cooks by classing it among the beautiful in life. But to put it on an equality with Cango is ridiculous. Francatelli never tasted Cango, his highest deliciousness was crayfish salad. Therefore I join issue with him on his soup statement. My gratitude is given, whole-heartedly, to my khaki smoker. He gave me a new friend, he showed me the Kaaba, he left me his Cango. I do not know his name. On the mountain slope, as on the high seas, we pass and salute, do a kindness or the reverse, and wander out of sight, out of existence, though not always out of mind. Perhaps he died, and is resting to-day, where so many of his mates rest, beneath the nodule-strewn mound on the high plateau of the Karroo, beside the guard places on the lines of communication. Perhaps he is alive, and smokes Cango today. No matter; alive or dead I owe him a debt of thanks which I shall not consider paid unless and until I meet with a brand that beats Cango.

I know it is the fashion to praise one's special mixture. If it were not, there would be precious few mixtures on the market, and the tobacco trade would stagnate. Nor do I hold with the theory that good things demand no advertisement. There is no greater fallacy in the proverb line than the statement that an excellent wine needs no bush. It does need a bush; it needs a small pinery or rhododendron hedge to show its merits. Therefore I have no occasion to blush, even on paper, in advertising Cango. It is not a brand. No one has ever offered it the indignity of an artistic tin or a silver paper habitation. It is ladled out to you by the handful, possibly with a pitying remark to the effect that you will find So-and-so's tobacco much more suitable for your purpose. For tobacconists, like all tradesmen, know infinitely better what you really want than you do yourself. Their occupation gives them the right of criticising your choice. They are experts, and ought to know, and, like many experts, they judge by externals, not by results. They go by the fashion, as doctors go by the faculty. Cango is not in fashion. It is a home production, and there is some truth in the proverb that prophets are fools in their own land. A man will not smoke Cango in a dress suit; he will satisfy himself with an inferior cigar. Perhaps it is a tribute to the excellence of Cango.

There is something supernaturally consoling in most tobaccos, and the criterion of a good brand is the exact amount of consolation one can get by smoking it. The custom of mixing, blending, purifying, refining, and adulterating the weed is, or should be, nauseating to the true smoker. "*Simplex sigillum veri*," and the magnificent Boerhaave, who was probably a smoker, tells us that

it is a vain and futile thing to attempt to obtain by two what can be gained by one. The nauseating custom above alluded to arose probably out of the inferiority of a certain tobacco, which inferiority it was imagined would be overcome and amended by blending the stuff with a better or worse weed. It is only in tobaccos that this taste for the coalition of two or more flavours has obtained popular approval. Who ever heard of a port drinker blending his liquor with sherry? Yet your smoker will swear by a no less anomalous and outrageous combination, and will blissfully and happily consume pounds of a mistura in which Turkish, American, and Indian tobaccos are included in varying proportions. He will defend his practice by sophistical arguments. There is always a Devil's advocate, and I have met men who will tell you with a calm face that Transvaal and Craven make an excellent mixture. Such men are geniuses, as much as Poe or Rembrand was a genius. They have "an unusual development of some special mental faculty which assumes an original and startling method of expression, and which exists at the expense of normal cogency of thought and action." And that, I believe, is the latest scientific definition of genius.

Cango permits of no admixture. It is the pure weed, pristine and undefiled, mild as the richest Valtellino, and fragrant as the thyme-scented water of a mountain stream. Let a man smoke it, and he will be in a position to write an advertisement for an ideal tobacco. It grows on the limestone soil of the Cango district, in the southern part of the Cape Colony, a district which is now famous only for its caves. In later times Cango will pride itself on its tobacco. At present the excellence of that yellow flaky fragrant leaf that is put up in the homely linen bags, tied round with a bit of tarred string, is known to few. You cannot for love or for lucre obtain the tobacco in London. You may get fair Magaliesberg, an ideal Negro-head, but no kiosk, shop, or emporium will yield you Cango. To get it you must go southwards, and walk into the little tobacco shops in Long Street in Cape Town, or in the various little side alleys that cluster round the Dock Road or pierce into District Number Six. There it is exposed for sale. The Malay cab drivers buy it, and smoke it in their clays. The labourer uses it, defiling its purity by mixing it with plug, because, forsooth, it is not strong enough for his palate, "grown callous almost to disease." In the Cango district it is smoked extensively, but there are other and stronger brands which are more in requisition. Outside Afrikanderland few know it and fewer smoke it.

There are points about my Cango which are worth further and closer study. The philologist may puzzle his brain about the meaning of the word. I have long ceased to endeavour to trace its derivation myself. It is easy, and it sounds well, to haul down a forgotten enclitic from the Bantu, which no one knows perfectly to-day, and apply it to explain philologically the exact meaning of the word "Cango." It is easy, but it is unsatisfactory. Personally it would not matter to me if the word turned out to mean "Fountain-of-the-hunter-who-died-of-thirst." The Bantu race was singularly destitute of a sincere appreciation of the humorous, and there are such compounds in their language, though there is no reason to believe that Cango is one of them. The point is interesting to students of comparative philology, and to those who revel in such coinages as "abdomen," "antimony," and other philological mysteries, I make a present of "Cango." If their painstaking and enthusiastic search is able to elucidate its meaning better or more convincingly than Tante Sarah—to whom I owe my knitted woollen pouch—was in a position to do during her lifetime, they will have the thanks of everyone who has smoked the stuff. For the present, in ignorance of the full and real meaning of the term, I smoke Cango as tobacco. It is Tobacco spelt with a capital T, and I want no other meaning for it. As the wreath curls out of the pipe bowl and fades away into the unseen spaces of the ether, its fragrant scent calls up a host of imaginings, thoughts, visions. Would a man be meditative, let him smoke—anything, but Cango for preference. In the watching of the wreath he loses the consciousness of his physical self: he steps over the threshold that divides real land from dreamland. And it is a question which I would propound for the exposition of the learned, Is there an association of ideas with certain brands of tobacco? I do not know. Memory is a matter of taste, of smell, of sight and hearing, as much, perhaps, as it is a matter of brain. The seasoned smoker has his shelf of pipes, and each of them, when he smokes it, brings back to his mind certain recollections, certain thoughts, visions, imaginings, which are indelibly associated with that particular pipe. Philosophy will never be fashioned on cigarettes, nor pure reason glorified on a cigar. Heraklitus would have smoked a pipe and advised Plato to smoke Cango, had he known of either: Spinosa, Luther, Socrates, Kant, Swedenborg, Newton, Susruta even, had they been smokers they would have ranged themselves with Heraklitus. The cigarette and the mixture would have won the praise of the dilettanti, Descarte, Acquinas, the teleological Galen, and the academically-minded Theophrastus. They would have smoked mixtures, and drawn paper fumes like any unferuled schoolboy, while the great men the masters, would have found their comfort in the homely briar and the undiluted weed. How much altered would have been the course of human history had tobacco been discovered a few centuries earlier. That unhappy man, whose story is so fascinatingly pathetic, so wonderfully pitiful, the great Chancellor Gerson, would he not have hesitated to write his name below the collective sentence of his fellow councillors that sent one of the sweetest and most human hearted of men to a fiendish death? Cango and Constance—what a speculation for the thoughtful if the two had been combined. Some day someone will write the Book of Tobacco as it ought to be written and prove to the world how much superior to theosophical theories and social reformation schemes Smoke has been as a factor in bettering humanity.

Guy's Hospital Debating Society.

A GENERAL MEETING was held on January 16th, Dr. Fawcett in the chair. After considerable discussion the following resolutions were made: "That the offer of the Central Fabian Society to send a representative to open a debate on Socialism be accepted." "That the committee be instructed to arrange for such debate to take place before the end of the present session."

In proposing "That in the opinion of this House the modern method of celebrating Christmas is objectionable," Mr. C. D. Killpack pointed out the difficulty of his task; there was no "Yes" or "No" to the question, every man being a law unto himself. He took the word "modern" to refer to Christmas, 1908; for "celebrate" he suggested "observe" as a better word, but his dictionary maintained that "celebrate"="observe" and "observe"="celebrate"; nevertheless, he was going to oppose the "celebration" of Christmas, whilst upholding its "observance." Again, the Committee should have added "in many ways." He had been much annoyed by advertisements inviting him to send plum puddings to friends in the colonies, and strongly suspected that the advertisers had an ulterior motive beyond that of seasonal benevolence. In fact, Christmas had become purely a trade affair. With Christmas came a wholesale waste and general neglect of duties, which alone afforded sufficient support for his case. Christmas in the hospital wards presented a sorry picture: one looked in vain for the usual display of intellect, and found instead a chaos of absurdity, which allowed the sufferings of certain patients to increase that others might give vent to their childish feelings. The hon. member concluded by asking members to vote according to the arguments, and to disregard their private feelings.

Mr. W. E. LEVINSON opposed the motion. Certain people were never happy unless finding fault. A lady of his acquaintance objected to old age pensions because one aged recipient fell dead on receiving his five shillings. He inquired what the modern method of celebrating Christmas was, and to whom it was objectionable. In the course of certain investigations on the subject, a Borough urchin had expressed to him its objection to Christmas on the grounds that all its friends became intoxicated, whilst a clergyman's daughter had deplored a day wasted in church. But these were narrow views, like those of the hon. proposer. Christmas brought amusement, jollity, light-heartedness, and that mystic something which made us all happy. In answer to his question regarding the modern methods of celebration, the hon. gentleman drew some vivid pictures of Christmas day: the upper classes sat around a Yule log in laughing throng, whilst the joyous peals of cathedral bells stole sweetly o'er the morning air. The log having burnt away, the happy crowd poured out to church, gladdening the hearts of the sick and the poor by their ready gifts and their magnificent array. The afternoon was spent in sleep, the music of a band replacing the cathedral bells. In the evening all was mirth. To the middle classes Christmas represented a glad reunion of the family, unalloyed happiness for the children and for their parents. The lower classes were led to rejoice by the bountiful gifts of their betters, and by the news of magnificent subscriptions for the sick and the poor. Who could object to these things? The hon. proposer alone.

Mr. A. B. DANBY seconded the motion. The happiness described by the hon. opposer was largely assumed—the spirit of Christmas did not grip everyone as he had suggested, nor were the petty discords of life always brought to a peaceful end.

Mr. E. G. SCHLESINGER seconded the opposition. The hon. proposer had not grasped the spirit of Christmas; he had harped on the cost, whilst he, especially as a member of Guy's, ought to delight in giving rather than receiving. Patients of broader mind than his found relief from their sufferings in the joy of others. Even the plum puddings were justifiable, for when generosity could be combined with profit the ideal of trade had been found.

Mr. T. B. LAYTON differed from the hon. proposer. Both the giver and the recipient obtained pleasure from Christmas presents; they were not merely conventional gifts. He had known lives to be saved by Christmas.

The JUNIOR SECRETARY agreed with the motion, but not with the hon. proposer. His chief objection to the modern Christmas was that it was celebrated more soberly than in the past.

Mr. T. I. BENNETT agreed that the mercenary feature was a considerable argument in favour of the hon. proposer, but did not agree that it afforded any particular objection to the *modern* Christmas. He upheld Chesterton's view that there is no sense in keeping a ceremony unless one keeps it ceremoniously, and suggested that the hon. proposer should not observe Christmas if he found it objectionable.

Mr. MARTYN LOBB asked what was the *modern* method of celebrating Christmas.

Mr. ROOK considered that Dickens deserved congratulation as being the first to suggest a proper celebration of Christmas.

Mr. LAIDLAW outlined many objectionable features—snowballs, over-feeding of the young, and useless presents. Moreover, the celebration of Christmas tended to put into the shade the possibilities of New Year's Day. He could imagine nothing more delightful than to collect a few "kindred spirits" on this occasion and —"have a night."

Mr. SCHLESINGER maintained that the modern Christmas was objectionable. Hotels replaced the family life; there was less jollity, and no snapdragon. Christmas was the time of the year for children, and their elders should bear this in mind.

Mr. LEVINSON, in replying, pointed out the truth in the words, "Laugh, and the world laughs with you weep, and you weep alone."

Mr. KILLPACK maintained that it was progression to find fault. He drew a harrowing picture of himself, then a small child, condemned to eat bread and milk at a Christmas party, the unhappy victim of a dental disturbance. Finally, he told the meeting that his sympathies were entirely with the other side, and that it was merely the spirit of argument which was responsible for his apparently narrow-minded remarks.

The motion was lost by a considerable majority.

Guy's Physiological Society.

A MEETING of this Society, at which Dr. Cameron presided, was held on Monday, January 11th. An interesting paper was read by Mr. W. Matthews on Shyness.

The author pointed out that two distinct forms of shyness are to be seen in adult persons. The first is the commoner and more obvious form, and is usually designated "nervousness." This is probably hereditary, and seems to be due to the "instinct of self-preservation." When a person is in a position in which alertness is required (e.g., in a moment of danger, or before the examiner at a "viva,") impulses seem to pass from the "psychic centres of the brain" to the vasomotor centres, causing changes in the distribution of the blood, so that more of it is conveyed to those parts from which increased activity is required. This causes, or is associated with, an augmentation of the sensory impulses arriving from the periphery, which again causes increased excitability of the motor cortex. This, so long as no voluntary movement is performed, results merely in a more or less general increase in muscular tone, and is not noticeable; but it is seen in the inco-ordination which results when the person endeavours to move—in the shaking hand of the candidate as he holds a specimen, or the tremulous voice of the nervous speaker.

The other form of shyness, although not so often seen, is a deeper and more serious affliction. It is the condition of the man who can never "let himself go;" who, through morbid introspection and persistent weighing of possible consequences, can never perform a decided action, as he is never certain it will be the right one. Such a person always lacks initiative and directness, is always misunderstood by his fellows, and usually ends by avoiding them as far as possible. This is a condition of inco-ordination of the mind, of hyperactivity of the "centres of reason," as is proved by the fact that, when under the influence of alcohol, such a person will, his higher centres being depressed, speak and act freely and often show his friends that his true character is entirely different from what they had imagined it to be. Such a characteristic is undoubtedly acquired, for it is not seen in the animals, and rarely, if ever, among savage races. It is most common in countries like England, where the climate is cool and humid, and is never to be seen among Southern races, who, as is well known, are seldon afflicted with shyness in any form.

Notices.

University of London.

LECTURES IN ADVANCED PHYSIOLOGY.—A course of six lectures on "Some Recent Advances in Physiology," with experimental demonstrations by Augustus D. Waller, M.D., LL.D., F.R.S., will be given in the Physiological Laboratory of the University of London, South Kensington, S.W., at 5 p.m., on Tuesdays, January 26th, February 2nd, 9th, 16th and 23rd, 1909.

The lectures are addressed to advanced students and to others interested in physiology. Any member of a London School of Medicine, whether an undergraduate of this University or not, may attend the lectures. Admission free, without ticket.

P. J. HARTOG,
Academic Registrar.

The London Hospital Medical College.
(UNIVERSITY OF LONDON.)

CLINICAL SURGERY.—A lecture on "Radium in Surgery" will be delivered by Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D. F.R.C.S. (Emeritus Professor of Clinical Surgery), on Tuesday, January 26th, 1909, at 3 p.m.

The lecture will be delivered in the Clinical Theatre of the Hospital. All students of the University are free to attend. Members of the profession will be admitted on presentation of their address cards.

MUNRO SCOTT,
Warden.

Prize Examinations, 1909.

Competitions for the undermentioned prizes will take place on the following dates:—

JUNIOR PRIZES FOR GENERAL PROFICIENCY.—Wednesday, March 10th, 10–1, Elementary Anatomy; 10–1, Anatomy: 2–5, Physiology. Tuesday, July 13th, 10–1, Histology; 2–5, Elementary Anatomy.

MICHAEL HARRIS PRIZE IN ANATOMY.—Wednesday, March 10th, 10–1. The date of the Practical Examination will be announced later.

WOOLDRIDGE MEMORIAL PRIZE IN PHYSIOLOGY.—Wednesday, March 10th, 2–5. The date of the Practical Examination will be announced later.

BEANEY PRIZE IN PATHOLOGY.—Monday, July 12th, 10–1. The date of the Practical Examination will be announced later.

TREASURER'S MEDALS.—Tuesday, June 1st, 10–1, Surgery; 2–5, Medicine. Wednesday, June 2nd, 10–1, Commentary on a Case in Medicine; 2–5, Commentary on a Case in Surgery. Thursday, June 3rd, 10–1, Clinical Examination in Medicine. Friday, June 4th, 10–1, Clinical Examination in Surgery. Operations to be announced later.

GOLDING-BIRD GOLD MEDAL AND SCHOLARSHIP IN BACTERIOLOGY.—Thursday, March 11th, 10–1, Paper; 2–5, Practical. Friday, March 12th, 10–1, Vivâ Voce.

THE EXAMINATIONS FOR OPEN SCHOLARSHIPS IN ARTS AND SCIENCE will be held on September, 21st, 22nd and 23rd.

DENTAL PRIZES.—First Year's Prize in Dental Subjects.—Tuesday, March 16th, 10–1, Dental Metallurgy. Wednesday, March 17th, 2–5, Dental Anatomy. Friday, March 19th, 2–5, Dental Surgery. 1909 Prize.—Tuesday, November 30th, 2–5, Dental Mechanics. Second Year's Prize in Dental Subjects.—Wednesday, March 17th, 2–5, Dental Anatomy. Friday, March 19th, 2–5, Dental Surgery. Friday, June 11th, 10–1, Dental Bacteriology. Friday, July 16th, 2–4, Dental Histology. Friday, July 23rd, 10–1, Operative Dental Surgery. Second Year's Prize in General Subjects.—Tuesday, March 16th, 2–5, Anatomy. Wednesday, March 17th, 10–12, Physiology. Thursday, March 18th, 2–4, Surgery. Friday, March 19th, 10–12, Surgical Pathology.

PRIZE FOR OPERATIVE DENTAL SURGERY.—The examination for this prize takes place early in the Summer Session. The regulations are given on page 36 of the Prospectus of the Dental School.

NEWLAND-PEDLEY GOLD MEDAL FOR PRACTICAL DENTISTRY.—The examination for this prize takes place in the month of February. The regulations are given on page 37 of the Prospectus of the Dental School.

SCHOLARSHIPS IN DENTAL MECHANICS.—Saturday, May 1st; Thursday, September 30th.

No candidate will be allowed to compete for any prize *unless he has given notice in writing to the Dean at least fourteen clear days* before the commencement of the examination.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants in the Medical Wards.—Messrs. H. R. Bastard (Dr. Hale White); M. A. Rahman (Dr. Pitt); V. T. P. Webster (Sir Cooper Perry); R. A. Rankine (Dr. Shaw).

Clinical Assistant in the Surgical Wards.—Mr. T. F. Brown (Mr. Symonds).

Ophthalmic Dressers.—Messrs. H. R. Mullins, W. T. Clarke (Mr. Eason, February 1st); S. J. Darke, H. F. Percival (Mr. Ormond, February 1st); T. Stansfield (Mr. Eason, March 16th); A. E. P. Cheesman (Mr. Ormond, March 16th).

Surgeons' Dressers.—Messrs. J. G. Saner, H. W. Doll (Mr. Symonds); A. Neville Cox, G. H. Hunt, H. Gardiner (Mr. Lane); T. D. M. Stout, F. S. Adams, H. G. Rice (Mr. Dunn); D. C. Lloyd, P. E. H. Patey, K. T. Khong (Sir Alfred Fripp).

Obstetric Dressers—March–April.—Messrs. J. L. Johnston, C. Witts, E. L. Elliott, C. H. Crump (Dr. Horrocks); M. A. E. Duvivier, R. P. Ballard, W. Reynolds (Mr. Targett).

Externs.—J. L. Johnston, R. P. Ballard, C. Witts, W. Reynolds (February); W. L. Hibbert, N. L. M. Reader, T. J. Killard Leavey (March); D. A. Mitchell, G. H. Peall, W. H. Catto, C. C. Tudge, F. S. D. Berry (April).

Civil.

FREMANTLE, F. E., M.B. Oxon., F.R.C.S. Eng., D.P.H., has been appointed to the Edward Jenner Lectureship on Public Health at St. George's Hospital Medical School.

KENNARD, DUDLEY, F.R.C.S., has been appointed Honorary Surgeon to the Westminster General Hospital.

Naval and Military.

Fleet-Surgeon ROBLEY H. J. BROWNE, R.N., is appointed to the *Implacable*, on recommissioning, 2nd February, and Surgeon A. W. IREDELL, R.N., to the Royal Naval Hospital, Plymouth.

The following to be officers whose services will be available on mobilization (January 2nd, 1909):—

3rd Northern General Hospital:—To be Lieutenant-Colonel: R. J. PYE-SMITH, F.R.C.S. Eng. To be Captain: Graham S. SIMPSON, F.R.C.S. Eng.

1st Western General Hospital:—To be Major: F. T. PAUL, F.R.C.S. Eng. To be Captain: J. LLOYD ROBERTS, M.D., F.R.C.S. Eng.

Sanitary Service:—To be Lieutenant-Colonel: SIR SHIRLEY F. MURPHY. To be Major: J. F. J. SYKES, M.D. To be Captains: L. M. BOWEN-JONES, J. H. H. MANLEY, M.D., F. B. WILMER PHILLIPS, M.D.

The Volunteer Officers' Decoration.

The King has conferred the Volunteer Officers' Decoration on the following Officers:—Surgeon-Lieutenant-Colonel A. KINSEY-MORGAN, 1st Dorsetshire Royal Garrison Artillery (Volunteers), and Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel ST. CLAIR R. SHADWELL, 1st Volunteer Battalion, the Essex Regiment (retired).

Papers by Guy's Men.

Chronic Pneumonia. By John Fawcett, M.D. Lond., F.R.C.S. Eng.—*The Clinical Journal*, 13th January, 1909.

An Examination into the Condition of the Vestibular Apparatus in a Series of Cases of Deafness of Non-suppurative Origin. By Norman H. Pike, M.B., B.S. Lond.—*Journal of Laryngology, Rhinology, and Otology*, vol. xxiii., Nos. 11 and 12, November and December, 1908.

Chronic Lachrymal Obstruction.

CLINICAL LECTURE BY MR. ORMOND.

GENTLEMEN,—I wish to-day to interest you in a subject which has for many years claimed the attention of ophthalmic surgeons. Celsus refers to the subject in his "De Medicina," written in the year A.D. 50, so that, you see, it is one of some antiquity.

The symptoms of this trouble are due to an interference with the lachrymal and conjunctival secretions reaching the nose, so that the tears, instead of disappearing naturally and unobserved, flow over the margins of the lids on to the cheek. The condition, when persistent, subjects the patient to considerable annoyance, since it necessitates the constant wiping away of tears, and the result of this friction is to produce redness and irritability of the skin, and also congestion of the eye, leading to a great sense of discomfort and to a false appearance of emotion; patients often complain that their friends believe they have been crying. "Lachrymal conjunctivitis" is well recognised by its distinctive appearance, viz., a "watery eye," the inner canthus being seen through the tears. 2. Injection of the conjunctiva, more marked towards the caruncle. 3. The matting together of the eyelashes, and 4. The redness and blotchiness of the skin of the lids and cheek. The tears are secreted by the lachrymal gland, which is placed at the upper angle of the orbit, in the fossa lachrymalis of the frontal bone; they are conveyed to the conjunctival sac by a large number of small ducts. The close approximation of the lids to the eyeball causes a thin smear of fluid to be pressed over the globe, from the temporal to the nasal side, by the act of blinking. The outer portion of the orbicularis palpebrarum contracts first, the wave of contraction passing from the outer to the inner side; the accurate approximation of the margins of the lids, together with the thin layer of fat secreted by the meibomiam glands, prevent any escape of fluid anteriorly, so that the fluid is forced towards the inner canthus, where it collects in the lacus lachrymalis. In this situation the canaliculi of the lachrymal duct open, and the tears are drawn into the lachrymal sac by the contraction of the muscular fibres present in its wall. These muscular fibres surround, more or less completely, the walls of the sac, and are derived from the orbicularis palpebrarum. By this contraction the lachrymal sac is squeezed and closed, and on relaxation the sac dilates, so that the action may be compared to that of a pipette. The tears, therefore, are drawn into the sac by the repeated contractions of the muscular wall, and so discharged into the inferior meatus of the nose. It is possible that the current of air passing along the nasal cavity across the mouth of the duct aids in drawing the fluid downwards. The action of the lids in cleansing the conjunctival sac has recently been given prominence owing to the contention of some ophthalmic surgeons that it is safer to omit the almost universal bandage after cataract extraction, and allow the patient free use of the lids. It is asserted that this procedure lessens the risk of infection and diminishes the number of organisms in the conjunctival sac. Bacteriological researches have shown, in some cases, that a bandage applied firmly to the eyes for one or two days increases the number of organisms found in the conjunctival sac, but I am sure that the presence of organisms is not so important a factor in wound infection as the kind and condition of the bacteria present, and, among out-patients, the bandage is also a most valuable aid in preventing them from touching their eyes.

It is not my intention to deal with all the causes of epiphora, but only with those due to lachrymal obstruction. Anatomically considered, the lachrymal apparatus consists of a sac with a rounded dome-shaped upper extremity, deep to and rising above the internal palpebral ligament, and placed in the groove of the lachrymal bone; its direction is downwards and slightly outwards and backwards; at its lower part the lachrymal sac opens into the duct, and there is another opening near its upper end from which bifurcate the two lachrymal canaliculi. These are placed more or less horizontally, the upper one diverging slightly upwards, the lower downwards to open on the margin of each lid at the puncta lachrymalia.

If we take an alkaline solution of fluorescine and instil one drop into the conjunctival sac, after a space of a minute or so we shall be able to find evidence of its presence in the nasal cavity, if we make the patient blow his nose. This is a very simple means of demonstrating the patency of the lachrymal duct. If this test is not sufficient, one may dilate the canaliculus and insert the nozzle of a lachrymal syringe filled with lotion and inject it into the sac, when it will be found, if the patient's head is pulled forward, and there is no obstruction, that the fluid will appear at the nostril. If by neither

of these means can the patency of the lachrymal apparatus be proved, further help can be obtained by using a solution of adrenalin, which contracts the blood-vessels and so causes a diminution of the thickness of the mucous membrane. Should all these measures fail, a probe should be passed into the lachrymal duct and by that means the position of the obstruction and its consistency ascertained. In the majority of cases the stricture is found in the nasal duct where this joins the sac.

The presence of a stricture in this position leads to a gradual enlargement of the structures above, so that the sac becomes distended and the tears accumulate in it. It has been asserted that tears have a bacteriocidal action, especially upon staphylococci, but it is not very potent, as the tears decompose and irritate the surrounding mucous membrane, producing a great increase of mucous. Into this fluid organisms are conveyed from the conjunctival sac, and a chronic n flammation is kept up, with the result that a mucocele is formed. Further distension of the lachrymal sac, together with ulceration of the mucous membrane, allows a certain portion of this septic material to find its way into the tissues outside, with the result that a localised cellulitis is produced. This forms the so-called lachrymal abscess, which discharges through the skin of the cheek, generally about half an inch below the inner canthus, midway between the margin of the lower lid and the side of the nose. When the discharge has ceased, there remains a fistula, through which the tears escape on to the cheek. The inflammation now subsides, the fistula remains, and from it a small amount of fluid sometimes escapes. If, however, the fistula closes, the symptoms recur; first of all, lachrymation, then the mucocele, and again the lachrymal abscess.

The mucous membrane lining the nasal duct is surrounded by a well-developed venous plexus, and is, at its lower part, continuous with the semi-erectile tissue covering the terminal bone. The walls of the duct are usually in apposition, so that any inflammatory condition producing swelling of the mucous membrane will lead to an active obliteration of the normal channel. In some instances this swelling of the mucous membrane alone is sufficient to lead to lachrymal obstruction, and may follow conjunctivitis or inflammation. On the other hand, cicatricial strictures may result from inflammation of the bone, periosteal tissues, or from traumatism. The pathological change associated with inflammation of the soft tissues forming the lachrymal apparatus consists in a great thickening of the epithelium, the cells of which are increased in number and become polymorphous, and large degenerated epithelial cells and an increased number of goblet cells are found; the mucosa and submucosa are invaded by round cells when the inflammation is of the purulent type. The result of this increase of the thickness of the mucous membrane is to cause a formation of papillary out-growths, which, spreading out to the lumen of the duct, further encroaches on the already narrowed space.

In some cases where the obstruction has been complete and present for a long time, the sac wall may be found to be thinned and cystic, with atrophy of the muscular fibres usually present; this condition is associated with atony of the sac, and may give rise to epiphora even after the obstruction has been removed.

In Professor Axenfeld's book on the Bacteriology of the Eye, which has just recently been published, attention is drawn to the fact that the majority of infectious diseases of the conjunctiva do not affect the lachrymal sac, the organisms passing through without obtaining a hold on the mucous membrane, and it is interesting to remember that a profuse purulent conjunctivitis will almost invariably leave the lachrymal sac unaffected. He points out that the mucous membrane is more nearly related to that of the nose than to that of the conjunctiva, and is relatively immune to the gonococcus and Koch-Week's bacillus.

On the other hand, according to German writers, the pneumococcus is the organism most frequently present in an acute catarrhal dacryocystitis. Next in order of frequency are staphylococci and streptococci.

Within the last few months I have had two cases of pneumococcal ulcer of the cornea complicated by chronic dacryocystitis, in both of which pneumococci were cultivated from the discharge. Dr. Eyre has recently found pneumococci, staphylococci, streptococci, and the bacillus coli communis in cases of mine which I have sent to him for examination.

I have at present under my charge a case in which a lupoid condition of the inferior meatus of the nose and alæ nasi is associated with epiphora, but I do not believe that the conjunctival sac is ever infected from the nose through the lumen of the lachrymal sac and duct, but only by direct transmission by the tissues of its walls. If, however, there is lachrymal obstruction and a mucocele is formed above the structure, then slight pressure will often force some of the muco-pus through the canaliculi, and so give rise to the lachrymal

conjunctivitis mentioned before. In that case undoubtedly infection takes place from the lachrymal apparatus to the conjunctiva, but where the passages are open the flow is always from the conjunctiva to the nose, and not *vice versa*.

The treatment of chronic lachrymal obstruction may be carried out by means of lotions, syringing, probes, styles, or by excision of the sac itself.

In any case where the obstruction is of recent occurrence and is likely to be due to catarrhal swelling of the mucous membrane, all operative interference should be carefully avoided, and antiseptic collyria used. The patient should be instructed to press over the region of the lachrymal sac in order to remove, if possible, any collection of mucous present, by forcing it either into the conjunctival sac or down into the nose; this should be done immediately before instilling drops into the eye. I find a lotion of perchloride of mercury made warm and of a strength of 1 in 1000 parts of water, very useful in these cases. This treatment should be repeated every two or three hours.

Another application that I have found beneficial is that of drops containing $\frac{1}{8}$ grain of hyd. perchlor., sodii chlor. $\frac{1}{2}$ grain, and water to an ounce. Judging from current literature, protargol and argyrol seem to be favourite remedies with many surgeons, but I have obtained satisfactory results with mercury. A solution of adrenalin has a very valuable effect on the swollen mucous membrane, and this should be used in the strength of 1–1000 parts of water. If, however, the obstruction persists, I usually dilate the canaliculus of the lower lid and slit it as far as, but not beyond, its entrance into the lachrymal sac; the reason for doing this is that it is much easier to reach the sac.

Inject the contents of a lachrymal syringe into the sac, using boric lotion, and if the patient is on his back, the operator should watch and see if deglutition takes place, which, of course, would be evidence that the fluid had passed through into the nose, and so on into the throat. If the fluid does not pass into the throat or nose, but remains in the sac and regurgitates towards the conjunctiva, I then explore by means of a moderate-sized flexible probe, corresponding to number three or four. By this means one ascertains the exact position of the stricture, and also the existence or otherwise of bare bone, and the nature of the stricture, whether it be permeable or not.

Although recognising that serious damage can be inflicted by the careless or excessive use of probes, yet I am of the opinion that a small one, carefully used, gives the surgeon very valuable information in a rapid and satisfactory manner; in fact, I would urge the use of a probe, because it is important that the surgeon should know, as soon as possible, the real cause of the obstruction. Unless some such means as this is taken, it is impossible to be sure that some local anomaly may not be present as a predisposing cause of the disease. Rhinologists are constantly finding abnormal or irregular positions of the bones forming the nasal cavities, and it is probable that the existence of some such condition is the predisposing factor of the obstruction.

If it is found that the probe passes with difficulty, and that the frequent attendance of the patient would be necessary to effect a cure, I use one of Bickerton's hollow styles, which, whilst using the probe as a director, I pass over the probe until its horizontal limb rests in the canaliculus, and its vertical one reaches the nasal duct. The probe is then withdrawn and the style left in position. The style can be left indefinitely, and if, as sometimes happens, its lumen becomes blocked by muco-pus, it is easy to remedy this by passing a fine wire down the style. The presence of the style ensures effectual drainage, and I have left one in position as long as six months. Mr. Bickerton insists on certain points being carefully attended to when using his hollow styles.

First.—The canaliculus (lower) must be slit right up to its entrance into the sac, otherwise the uncut portion will be torn in inserting the style, and trouble will follow.

Second.—The canaliculus must be divided accurately in the centre, otherwise the horizontal limb of the style will be tilted either forwards or backwards.

Third.—The length and size of the style and the length of the horizontal limb must be chosen with some regard to the age and size of the patient. To insert a short style where a long one is indicated, or one with a long horizontal limb where a short limb ought to be used, or *vice versa*, is to court failure.

The advantages of this method of treatment over syringing or probing are that a frequent attendance of the patient is not necessary—a matter of considerable importance where he or she is a wage-earner. We sometimes assert that hospital patients are treated gratuitously, and from one point of view this is true; on the other hand, you must remember that the hours during which out-patients are seen coincide

with the ordinary working hours, and that it is often an expensive matter for a man to attend frequently.

Lastly, if all these methods fail to meet the case, and the purulent discharge from the lachrymal sac still continues, it is necessary to excise the sac entirely. Sometimes it is justifiable to do this without trying any of the previous treatments, as, for instance, where the surgeon wishes to extract a cataract, or where a corneal ulcer is present, but this drastic measure is hardly justifiable in simple and uncomplicated cases of lachrymal obstruction.

Extirpation of the sac.—Continental operators usually perform this operation under a local anæsthetic, but I should advise you to use a general anæsthetic and to avoid ether if possible. The chief difficulty in carrying this out lies in the free hæmorrhage encountered, and unless this is controlled it is difficult to see the sac, consequently some portion of the mucous membrane may be left behind, and will give rise to difficulty later; a good light is essential, as the wound is of necessity a deep one. Adrenalin and firm pressure applied for some minutes during the course of the excision will best control the hæmorrhage. The incision should be from one to one and a half inches long, starting just above the internal lateral ligament and a little internal to the inner canthus, and carried downwards in a curved direction as far as the lower margin of the orbit. Deepen the incision and cut through the interior lateral ligament; the sac is adherent to its deep surface. Now, using a blunt dissector, free the nasal wall of the sac from out the nasal groove. By dissecting a little upwards and downwards, the greater portion of the sac may be freed on its inner and posterior aspects. The outer and anterior surfaces are attached more firmly and must be cut away with blunt-pointed scissors.

When the sac is freed all round, and also above, it should be pulled forwards and upwards, and then cut as low down as possible. the upper part of the nasal duct being afterwards curetted. Stretching of the tissues about the wound aids considerably in controlling the hæmorrhage. If you have an assistant at hand he should use retractors, and keep the edges of the wound well stretched; if not, there are various spring retractors made which will aid you in doing this.

The wound heals readily, and gives no trouble; the patient, as a rule, has no epiphora, except when the conjunctiva is inflamed, or some inflammatory condition is present in the eye.

It not infrequently happens that very young children are brought to me suffering from a mild but intractable form of conjunctivitis, which, though constantly treated by antiseptic lotions and ointments, yet prove obdurate. These cases are due to an obstruction of the canaliculi by dried secretion, and are most successfully treated by dilating the canaliculus and passing a fine probe into the nasal duct. It is not necessary to do it more than once, and in all my cases this remedy has been most successful.

Pass List.

UNIVERSITY OF OXFORD.—Final B.M., Pathology E. P. Poulton, B.A., Balliol.

FIRST CONJOINT EXAMINATION, January, 1909.—Parts I. and II., Chemistry and Physics: C. A. Haynes. Physics only: J. G. Richards, C. R. Smith. Part III., Elementary Biology: J. S. Cocks, R. Curle, W. K. Fry, C. H. Medlock, L. D. Wright. Part IV., Practica Pharmacy: V. P. Hutchinson, F. Kahlenberg, H. Lee, W. E. Levinson, F. G. Lloyd, F. Morres, C. M. Plumptre, M. C. Wall.

SECOND CONJOINT EXAMINATION, January, 1909.—Anatomy and Physiology: R. S. de C. Bennett, W. M. Langdon, L. Milton, P. Smith, J. L. Stewart.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Preliminary Science (L.D.S.) Examination, January, 1909. —Parts I. and II., Chemistry and Physics: D. H. Barr, J. E. Davies, V. F. H. Golledge, W. S. Lakeman, D. B. Morrish, W. L. Partridge, A. F. Salsbury. Physics only: C. M. Desai.

Change of Address.

H. Hunter Carter, M.B. Lond., from Beech House, Wingate, Co. Durham, to 4, Thirsk Terrace, Northallerton.

Lieutenant A. T. Densham, M.B., B.C. Cantab., Indian Medical Service, from Guy's Hospital, to 5 Cantonments. Cawnpore, India.

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Mr. H. E. Marsh, L.D.S. Eng., from the University of Pennsylvania, Philadelphia, to 1, Cantelupe Road, Bexhill-on-Sea.

E. W. Sumpter, M.B., B.S. Durh., L.D.S. Eng., from Guy's Hospital, to Ebor House, St. Paul's Road, Dorking.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

The Old Doctor.

THERE'S the last stick gone; well, one last look round
and I'll shut the door on the past:
So I've fought with Death the best of my days, to be
beaten by Life at last!
How I've hated the house, but now, at the last, it hurts
me to leave the place;
Yes, I've somehow failed, but I try to feel defeat may
not spell disgrace;
For 'twas bad luck here, and a false friend there, and
loss upon loss with me,
And the younger rivals, "so clever" 'twas said—as only
the young can be!
And I'm sixty-five; but I'll never fear to take Life's sea
again,
For I know its tides, how they turn and swing, in a
rhythm 'twixt peace and pain.
How sorrow and joy but come, to go; and go, but to
come once more,
With an ebb and flow, in time, maybe, with the seas of
some vaster shore.

Well, here's the room where I've sold the best of my
brains for twenty years,
And listened, oft sick to the soul myself, to others' hopes
and fears;
Twas a leading of the blind by one but a little less blind,
I know,—
I sell others advice, forsooth, who have tangled my own
life so!
Still, mine it has been a many times to bid back hope to
the breast,
Or brace a heart to bear the truth when put to the bitter
test.

Ah! *this* room—dare I enter?—once it held for me
heart's-delight,
When however harshly the day went wrong, came always
the healing night;
'Twas here I brought my own sick thoughts to be healed
at her gentle hand,
No need to falter for fitting words, it was always—"I
understand."
For though many a foolish heart-pang came at first for
her and me,
Love taught us soon his give and take, his systolë—
diastolë.
Here her fending arms shut out the world, in that
hopeful short-lived past,
And 'twas here, ah me! one cruel dawn, I crossed her
hands at last.

And now,—all bare as my bare blank life! nay, see—
my night-bell still!
That voice of a tyrant world, that grudged e'en Night's
release from his mill;
How many a time its startling cry rang out our bed
above,
And I left her side, to pay to Life his fee for home and
love:
But here, where she knelt a thousand times, I pray now,
one last boon,—
Lord, I am very weary, grant my latest call come soon;
Yet if in that last deep sleeping comes a summons at my
door,
Lord I will rise if 'tis Thy will, and take my round once
more.

And here once stood the cot that held her crowning gift
to me,
With its crooning prophesies of love and light for the
days to be,—
For these darkened days, and those others yet to be
dragged through, somehow, alone.
O Good Physician let my loss a little for my life atone;
For I suffered then, and oft, one pang Thy manhood
never bore,—
Thou didst but stretch a healing hand, and strength
pulsed back once more,
But we—we doctors—helpless, tend our dearest to the
grave,
And hear the mother's anguished cry to save, and
cannot save.
And twice between these haunted walls I strove from
night till morn
Racking the brain for some one chance more, till the
heart seem'd ten times torn.

Ah, well, I'm a fool to so probe the past; for the bitterest
sharpest thought,
Give it rest, encysts itself in the mind, till the pang
grows less or nought.
So I'll fasten the door on the echoing house, and brace
once more for the strife;
Yet, oh that I might so take a key, and turn the lock on
my life!
And shall I not?—for many would fit, and I have them
all to my hand;
Nay, the case is bad, but let's see it through, and at last,
maybe, understand:
Aye, its very badness spurs somehow, as in many a *case*
gone by,
And I'll wait for the Great Post-Mortem to make plain
the hidden Why.

From *Devices and Desires.*

By P. HABBERTON LULHAM.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Dental Society's Prize Papers.

Environment: Its Physiological and Pathological Effects upon the Teeth and Jaws.

Paper read by R. C. MORGAN before the Students' Dental Society, February 14th, 1908.

MR. PRESIDENT AND GENTLEMEN,—The subject which I have chosen for my paper to-night is "Environment: Its Physiological and Pathological Effects upon the Teeth and Jaws." Now, firstly, let us consider exactly what we understand by the term environment. In its widest sense it may be taken to embrace the aggregate of all the external conditions which affect existence. In our paper to-night we will content ourselves with considering some conditions and factors which may probably have caused a deviation in the shape and form of our teeth and jaws from those of our primitive ancestors, the changes produced not tending to handicap or hamper the possessors in any way, but, on the contrary, rather to fit them and make them more capable of performing the natural functions necessary for their existence under their new surroundings, in short, adaptive modification. This is what I mean by the physiological effects due to environment.

Then, under pathological effects due to environment, we may consider any conditions or factors which are, in any degree whatsoever, able to produce an abnormal condition of the teeth and jaws which would tend to place the individual or individuals so affected at a disadvantage, and perhaps cause a diseased condition of those parts. Still, under the heading of pathological effects due to environment I would include those conditions of the teeth and jaws caused by working at some dangerous trades, which I have designated as conditions brought about by commercial environment.

Let us consider man as we may conceive him to have existed in primitive times. Now we look upon early man as a very ferocious animal who used to run about on all fours, kill his own food, and fight for the possession of the female, just like some of the savage animals of the present day. So, in order to do this, we should expect him to have a set of teeth adapted for the purposes for which they were used; that is for killing his prey and fighting other males. Now we do not know what the form of the teeth and jaws of primitive man actually was, but, by analogy with some of the lower races of our own time, we can form a fairly good idea as to what they were like.

In the lower races of mankind the arches of the upper and lower jaws are not so complete as in modern man. The jaws are squarer in front, the incisors being arranged more or less in a straight line. The canines are large and strong, and in some cases have a diastema in front. All the teeth are of great size; the wisdom, or third molar, is as large as the others, and has a considerable amount of room behind it, and the jaws themselves are massive. There is also a considerable amount of prognathism and protrusion of the lower jaw.

These conditions are very different from those that exist at the present day amongst civilized Europeans. In them we find, normally, there is no protrusion of the lower jaw, the teeth of the molar series are tending to decrease in size from front to back. The canines, although differentiated to some extent, are not by any means large, and have no diastema in front. The molars, instead of having five cusps, present only four, except the foremost on each side of the lower jaw which still have five. The jaws themselves have decreased both in thickness and in antero-posterior direction, so much so that the wisdom tooth has little or no room to erupt. These modifications are still becoming more and more marked, as is seen by the constant malplacement of teeth, owing to insufficient room for them to erupt in the arch.

Primitive man, as we have seen, probably behaved more or less like one of the lower animals, but as he evolved from his bestial state many alterations took place, and one of the developmental changes calculated to produce the most far-reaching results would be the assumption of the erect position. For this, by setting free the hands, would render possible other changes, the importance of which can hardly be overestimated. Once this change had taken place his superiority to the lower animals would be immediately manifested. By a gradual process of evolution he would become adapted to his altered circumstances. He would find it was not necessary to use his teeth for purposes for which he had hitherto used them, as he could now perform some of those functions more effectively with his hands. Then, later on, when his intelligence began to increase, he made for himself knives of stone and bronze to divide his food, which he now cooked, as he had found out how to kindle a fire. Also, when fighting his enemies, he would not need to come to such close quarters as he had been obliged to formerly when his weapons were his teeth, as now he could hurl stones or weapons at them from a distance. Perhaps his aim was not very true at first, but with a little practice he would gain a certain amount of precision. All this reacted upon the teeth and jaws, in that they were not used to anything like the extent that they were hitherto. This being so, they would naturally diminish in size, and if not used at all would dwindle away altogether, or become very rudimentary. This process of involution does not take place suddenly, but is very gradual. This tendency to dwindle is transmitted from generation to generation, so that we find eventually a very different state of things from what we had at first.

Nature is not drastic in her measures, but gives her organs the very last chance, so to speak, and if in the end they prove that they are no use under the new conditions of the organism they have to go and make place for other organs that will be. Even when they have proved their uselessness Nature seems very loth to part with them, and permits them to remain for a time, and that often a very long time, to remind her, as it were, of her former

handiwork. Several such rudiments are seen in our own bodies, and also in the jaws of many whales.

Man, we have seen, gradually used his teeth less and less, with the result that they altered in form and diminished in size. Going on concurrently with this, we find greater development and specialization of brain and hands. Also, on becoming biped, man used weapons for fighting his enemies, but this, and accuracy of aim, did not suffice to give him the advantage he would attain if he used his head in conjunction with his hands. So soon we find him thinking and planning before making war upon his enemies, and so using other organs which were not in use before. These organs which were coming into use would be developed and intensified in succeeding generations side by side with the diminution of organs which had come into disuse or partial disuse.

This change in form of peculiarities, which probably had themselves been brought about by a long process of selection, and now is no longer serving the animal to obtain its food more quickly than its rivals, possibly proved a hindrance under changed circumstances, and their subsequent displacement by peculiarities which are more useful to it under its altered conditions is what we understand by adaptive modification.

Having seen that external influences are capable of producing a modification in the form of the teeth and jaws, let us consider how Nature sets to work in bringing these changes about. Nature, we know, in the pursuance of all her many and varied functions, is always guided by some rule. One of her rules as to the growth of bone is that it should be directly proportional to the pressure put upon it. Now, as man became more civilized, he used his teeth less and less, with the result that the pressure exerted in the long axis of the tooth to the bone became correspondingly less. This, in accordance with the above rule, would cause a diminution in size of the jaws, both in thickness and in the antero-posterior direction. In this connection we may consider the part played by the masticatory muscles, the work of which not being as great as formerly, the pull on the bones of the jaws would be lessened, and thus the size of the latter would be affected. This partial disuse of the teeth and jaws would be accompanied by a diminished blood supply to those parts, consequently depriving them of much of their original nutrition. This, of course, would be one way by which Nature meets her ends, as the amount of oxygenation a part gets is dependent upon the amount of use to which that part is put.

Sometimes, however, Nature decrees that not only shall those organs which are not used become diminished, but also other organs, although used quite as much as formerly, should become smaller with them. This is what is understood by correlation of growth. This may possibly explain the fact that in the States we find that there is a tendency for further reduction of the teeth amongst those classes who use their hands and feet very little. As we become more and more civilized, we may find yet another cause for the further reduction in the size of the teeth and jaws in what has been termed "concomitant variation," that is to say, the reduction in growth of one organ going on, hand in hand as it were, with the further development and specialization of another. As the march of civilization goes on, much more is required of us in order to prepare us, and make us more capable of holding our own in the fight for existence, which is as keen to-day as ever it was. This fitness manifests itself in increased brain capacity which goes on at the expense of some other organ or organs of the body. The reason for considering that the teeth and jaws are the sufferers, is that both derive their blood supply from the same source, viz.:—the carotids. Should the blood supply remain constant, it seems only reasonable to assume that if the brain has it, the jaws cannot.

Having already spent too much time on the results of civilization upon the shape of the jaws and teeth, let us pass on to consider the pathological effects brought by environment now we are civilized. The one disease above all others which we as dental surgeons will have to deal with is caries. It is a well-known fact that a very small percentage of the people of the civilized races have mouths free from caries. Why should this be? Many plausible theories have been put forward to account for it. Perhaps one of the best of these is the absence of lime-salts in the food and water. Röse made certain investigations among the children of two districts, one rich in lime-salts and the other poor.

In one district of Baden, where there were little or no lime-salts, he found that 98.9 per cent. of the children had carious teeth, whereas, in another locality not far away, where lime was rather plentiful in the water, the number of children with carious teeth was 79 per cent. From this, I think we must conclude that the presence or absence of lime-salts in a district has some relation to the condition of the teeth of the inhabitants of that particular locality. This, in fact, is not more than we would expect, knowing as we do, that teeth contain a very large percentage of lime-salts. These salts are conveyed to the tooth germ, at an early stage of the child's life, by the blood stream, and deposited there. Where does the blood obtain this lime? is the question we must ask ourselves. As we have no evidence to show that the cells of the body have the power of manufacturing lime, we must necessarily conclude that it obtains it directly from the food. But here we see, even in that locality where the water contained plenty of lime, 79 per cent. of the children had caries, which makes it obvious that we must look for some further cause to account for the prevalence of caries at the present day. Some authorities consider that the cause is to be found in the artificial foods given to the infants in place of their natural food, and in the way foods are now prepared, which they consider are deprived of much of their bone- and tooth-forming properties. Then, again, we have the modern methods of cooking, which render the food very soft, and so not much masticatory effort is necessary in the process of deglutition. We have seen that the partial disuse of the masticatory muscles had an effect upon the size of the teeth of primitive man, owing to the

diminished blood supply which they received, so I think it can be concluded that the further disuse of the teeth and masticatory organs would cause a still further reduction in the amount of nourishment supplied to these parts. In this instance the diminished blood supply shows itself in the teeth having less resisting power to bacterial and acid actions. Yet another factor capable of producing susceptibility to caries is to be found in our town environment. During the last few decades many of the European nations have become industrial, whereas formerly they were agricultural and pastoral. This industrial development caused the people to congregate in the vicinity of the factories at which they were employed. Towns sprung up in a very short time, with the result that many dwellings were erected which were squalid and insanitary. Several families were obliged to live in the same house, and often one family in one room. This condition of things must have a detrimental effect upon the general vitality of the people thus situated, and so affect their offspring. We know that children brought up under these conditions are liable to become rickety, tuberculous, or to contract any one of the exanthemata, which, occurring as they do at the most vital period in the development of the permanent teeth, have a most marked ill-effect upon the capacity of the tissues, of which they are composed, for resisting the inroads of caries, the germs of which are always present in unclean mouths. Although altered conditions of living, brought about by modern civilization, have much to do with the prevalence of caries, they are not exclusively responsible for it, as has been proved by Mr. Mummery, who made some interesting investigations to find out to what extent caries existed in the mouths of ancient Britons. Some skulls of a race from some ancient British graves in Wiltshire were first examined. These were sixty-eight in number, and only two cases of caries were found. The next to be examined were those of a more civilized race from the agricultural districts near the seaport towns of Briton. Thirty-two skulls were examined, which showed six cases of approximal caries, and one on the grinding surfaces. Later, sixty Yorkshire skulls were examined, of which twenty-six showed signs of disease, and evidences of abscesses were frequent.

We have mentioned the development of industries as a cause for the prevalence of caries in teeth. Now let us go on to consider some special industries, which have a direct effect upon the teeth and jaws of those who are engaged in them, conditions which I have spoken of as occurring through "commercial" environment. One of the first of these industries which claims our attention is that of match-making. In the manufacture of matches, two kinds of phosphorus are used, viz.: the white or yellow phosphorus, and the amorphous or red variety. The former of these is poisonous. It is a volatile colourless substance when pure, which quickly evaporates into the air, where it combines with oxygen to form the phosphorus and phosphoric oxides. It is this "fume" of phosphorus which causes the condition known as "phossy" jaw in some of the workers in certain departments of a match factory, viz.: the mixing, dipping, drying, and boxing departments. This disease is necrosis of the jaws. It may affect either the upper jaw or the mandible. The oxides contained in the air become dissolved by the saliva, which consequently acquires a marked solvent action on the teeth. Decay occurs after the disintegration of the enamel by the acid saliva, the pulp dies, and infection of the apex of the teeth is produced, and finally the bone is affected and is necrosed. This disease was common amongst employees of match factories some ten years ago, but owing to the improved conditions under which they now work, periodical dental inspection, and the introduction of the sans phospherine, match it is now becoming an uncommon occurrence.

In order to obtain some recent information on this subject, I wrote to Dr. Garman, who is the Medical Officer to Messrs. Bryant & May, and he very kindly furnished me with some. In the course of this letter, he says, "The introduction of the sans phosphorus match into this country by Bryant & May during the past eight or nine years has entirely put an end to that disease in these works. I have not had a single case to report for over seven years." Even before the introduction of the sans phosphorus match, the percentage of those who suffered from phosphorus necrosis in this particular factory was rather low. Out of over 1,500 hands, only fifty suffered severely in twenty years, giving an average of two and a half cases a year. Many gum-boils occurred, but they never came to anything under dental treatment. Dr. Garman was most emphatic in one statement he made, and that was this: "We never had a case which did not begin through a decayed tooth," and this, coming from a man of his experience, would make us consider that the one and only safeguard against necrosis, in those match factories where the yellow variety is still in use, is to be found in the proper care and periodical inspection of the teeth of the employees. Many match factories now keep their own dental surgeon. Apart from the actual diseased condition brought about by phosphorus fumes, it has been found that amongst people with no carious tooth in their mouths, a lengthened contact with phosphorus fumes induces an adhesive inflammation around the roots of the tooth, causing it to become firmly incorporated with bone, and making the tooth very difficult to extract.

Another trade which has a detrimental effect upon the teeth of those following it is the felt hat industry. In this occupation it is the duty of some of the employees to brush the rabbit skins intended for hats with a dilute acid solution of mercury. The acid fumes are dissolved in the saliva, and so affect the teeth. The condition of the teeth of people who have been so employed for a number of years is very typical. The molar teeth in the upper and lower jaws drop out. The upper incisors and canines are often missing, and those teeth which are left are characteristically black and often loose. They are eroded, and there is usually considerable recession of the gums. Also amongst the trades which cause a pathological condition

on the teeth of the workers are the acid and alkali, together with those industries where either of these chemicals is used in any quantities. As the effect upon the teeth and the manner of production is practically the same, whether the agent is an acid or alkali, I propose to consider only one industry where chemicals are used in sufficient quantities to have any detrimental effect, viz., the tin-plate industry.

In the course of the manufacture of tin plates, there is what is spoken of as a pickling process. The plates have to be cleaned, or pickled in dilute sulphuric acid. This portion of the work usually falls to the lot of girls, whose duties consist of ladling and unladling "cradles" in which the plates are placed in racks and lowered by the pickler into steaming tanks of acid. These girls carry the plates backwards and forwards; at first they fill the racks, and then remove the wet plates fresh from the tanks. Their clothing thus becomes saturated with acid pickle. The strength of the acid varies in different factories, and also according to the sort of plate to be pickled. Sometimes it is so strong that the workers are obliged to put a piece of flannel between their teeth, through which they breathe. The acid fumes collect on the flannel, with the result that the teeth are blackened and rot away. However, it is not necessary for the workers to be chewing a piece of flannel in order that their teeth should be affected, as the acid fumes become dissolved in the saliva, and through it act upon the teeth.

Finally, let us consider those occupations where the employees are certainly liable to extensive caries, but who need not be so if they would only take the necessary precautions to prevent it. I refer to those who, in following their several occupations, are liable to get fermentable material in their mouths, and fail to remove it by cleansing and brushing their teeth and mouths. In this category would be placed jam factory employees, confectioners, millers, bakers, and workers in biscuit factories. This class of worker usually shows typical carious cavities, especially on the labial surfaces of the incisor teeth, caused by the continued presence of carbohydrate materials, inhaled whilst at their work.

In the course of this paper I have endeavoured to bring to your notice some few factors which may have influenced the size and form of man's teeth and jaws in early times. Many of the theories put forward are, I admit, very debatable, but, I think the balance of the probabilities is rather in their favour. Then I introduced some theories, which have been advanced from time to time, to account for the prevalence of caries in modern man. These, again, are not by any means conclusive; and, finally, I considered some condition of the teeth and jaws brought about by industrial environment. In the latter case we were concerned with facts, about which there can be no doubt whatever.

In conclusion, I should like to express my indebtedness to those gentlemen who have kindly either furnished me with information, or lent me books from which to get it, viz., Messrs. Campkin, Maggs, Payne, and Dr. Garman.

REFERENCES.

Darwin's "Descent of Man."
Wallace's "Darwinism."
Romane's "Darwin and after Darwin."
Smale and Collyer's "Dental Surgery."
Tomes' "Dental Anatomy."
Parliamentary Report on the use of phosphorus in the manufacture of lucifer matches, 1899.
Report of the Committee appointed by the Council of the British Medical Association to consider "The early Decay of Teeth amongst the Inhabitants of Britain."
Dangerous Trades. By Oliver.

EXHIBITS.

Two cases showing the necrosis of bone brought about by phosphorus.—From the Museum.

A card of teeth extracted from the mouth of a baker, showing condition brought about by inhaling fermentable material.—Through Mr. Payne.

Girl, from Messrs. Peek, Frean's biscuit works, showing similar condition.—Through Mr. Gibbings.

An Amateur Liar's Work.

I HAVE always been an interested reader of what may be called "crank's literature," that is—the pamphlets and leaflets issued by societies of faddists such as Liberationists, Antivaccinationists, Semi-teetotalers, Antivivisectionists, and many others, all of which manage to collect funds from some credulous people, and all of which, if we are to believe the statements of their paid officials, hired hack-writers, and other interested persons, exist entirely for the physical and moral emancipation (as like as not, that phrase is borrowed from one of the aforesaid pamphlets) of humanity.

Now at first when I read these leaflets I was very impressed by them. Their facts and figures were so dazzling, their display by various kinds of type so alluring, and their logic so high-handed, that it seemed impossible not to believe that they had been composed and printed at the Printing Press of Truth herself.

After a time, however, it seemed to me that the concoction of similar pamphlets might not be such a difficult task after all. I therefore decided to try my hand, and started with an antivivisectionist leaflet, that being the particular form of crankery which most appealed to me on account of the thrilling, bloodcurdling style of its "literature," and the ease with which it seemed possible to fabricate appropriate facts and figures, and say they were obtained from "unquestionable authorities." I give below some of my results, which I may describe as

FACTS OR FICTION? or
How long shall these things be?

It may not be generally known that vivisectors are accustomed to watch the struggles of the helpless creatures they are torturing in the company of their wives and families, whose delighted shouts almost drown the ceaseless screaming of the hapless victim.

Moreover, as is illustrated in Mark Twain's touching story, any vivisector when operating, say, on a dog, is by law allowed to invite all his relatives and friends to be present, so that the mental anguish of all concerned shall be as poignant as possible.

Who can tell how many helpless and shrieking *infants* are secretly vivisected in our physiological laboratories? Is there a modern

MASSACRE OF THE INNOCENTS?

Ask the Home Secretary. It is notorious that he winks at practices such as these.

Of course, it is a well-known fact (undoubted by anybody who has studied antivivisection literature) that physiologists

OFTEN LINGER OVER THEIR EXPERIMENTS,

even cancelling all their other engagements in order to make the torture they inflict as keen and prolonged as they are able.

Why do people—otherwise reasonable and intelligent enough—believe the farrago of nonsense which is served up as evidence before Royal Commissions, especially when they can learn

THE WHOLE TRUTH

from such truly "expert antivivisectionists" as Mr. Sidney Trist and Mr. Stephen Coleridge.

A well-known (in antivivisection leaflets) physiologist thus describes his feelings when conducting an experiment:—"I *must confess it is very delightful to me*, when first cutting the skin of my experimental material, to watch its ineffectual writhings, and, if a dog, its intelligent expression of supplication. I love to see the

WARM FLESH QUIVERING UNDER MY KNIFE,

and as I sever a nerve, or dabble my hands in the streaming crimson blood, it gives me great pleasure to realise what boundless benefits I am conferring on mankind by this experiment, as well as the enthralling interest and importance of the experiment itself."

A "Lover of Animals" describes her visit to a physiological laboratory as follows:—"There was a class of students fitting up batteries, electricity machines, and such-like apparatus, specially contrived to torture poor wretched animals. The callous

YOUNG BRUTES OF STUDENTS

had frogs with staring eyes that they were experimenting upon. They turned on the machinery, a low buzzing sound followed, wires were placed on the quivering nerves of the mutilated creatures, who showed their pain by the most violent jerks of their legs. Each frog had lost I should think

A TEACUPFUL OF BLOOD

at least. One student seemed to be more merciful than the others, and to have at any rate the makings of a Christian, for he said to me: "I cannot bear to pith my frog, so I shall do it without." It seems the others had some devilish practice of torturing the frogs by what they called "pithing" before they did the actual experiment.

Reviews, etc.

The price of books submitted for review should in every case be stated.

Proceedings of the Royal Society of Medicine. Vol. II., No. 1. (Longmans, Green & Co.). Price 7s. 6d. net.

This, the first number of a new volume of this sumptuous periodical, opens with the report of a committee of the Society appointed to consider the inquiry of the Chief Surgeon to the Metropolitan Police as to the best method of resuscitating the apparently drowned. After reviewing the history of the subject, and receiving evidence, the committee came to the conclusion, and their reasons are stated in this report, that the Schäfer method is preferable to either the Marshall Hall or the Sylvester methods "for what may be called first aid in cases of drowning," but admitted that "there may be circumstances which may render other and additional means desirable." As a result of this committee's investigations the Schäfer method has, we believe, been officially adopted by the Metropolitan Police.

In the section for Children's Diseases three cases of congenital heart disease—one showing continuous absence of any murmur—are described, which gave rise to an interesting discussion. Two cases of microcephaly, showing changes in the *fundus oculi*, are described by Dr. Geo. Carpenter.

In the Clinical Section an account of a case of gastrostaxis, with gangrene of two fingers, is given by Mr. Stanley Green, M.B.; Dr. Poynton describes a case of pyuria (probably due to pyelonephritis) in pregnancy, where the patient, a woman of twenty-one, gave birth to a full-term child, which at the age of 7½ weeks developed an acute attack of pyelonephritis, showing irregular pyrexia, pyuria, profuse sweating, paroxysms of pain, and muscular twitchings, rigidity of neck, irregular breathing, vomiting and abdominal distension, and, for a time, obvious jaundice. The case is interesting in connection with Dr. French's recent Goulstonian lectures.

Mr. W. Deane Butcher, president of the Electro-Therapeutical Section, contributes a preliminary account, which is well worth reading, of the fourth International Congress of Medical Electrology and Radiology, held at Amsterdam. The newest applications of electricity to diagnosis include instantaneous radio-photography of the heart, lungs, and abdominal viscera; a method of testing the sensibility of the teeth; a method of distinguishing between still-born and live-born children by alleged differences in the skiagraphic appearances; and Prof. Wenckebach's systematic use of stereoscopic radiophotography in the investigation of heart and lung cases.

The Epidemiological Section consists of a long paper by Dr. O. H. Peters, which is described as a preliminary study on "Season and Disease."

Capt. McCarrison, I.M.S., contributes to the Medical Section some "Observations on Endemic Cretinism in the Chitral and Gilgit Valleys," illustrated with photographs.

Among other papers in the Neurological Section are two by Dr. Frederick Batten, on the sequel to a case of cerebellar atrophy previously exhibited, with the post-mortem findings, and on "Diffuse Sarcomatosis of the Brain and Spinal Cord."

Dr. J. Evan Spicer's paper on a case of "Dystocia due to Distension of the Urinary Bladder of the Fœtus, with some Remarks on Renal Secretion *in utero*," is full of interesting facts. Dr. Lewers describes a case of carcinoma of the body of the uterus treated by vaginal hysterectomy, and free from recurrence fifteen years later.

Dr. Panton contributes to the Pathological Section a paper on his researches into some aspects of the "Action of Arsenic," and concludes: "That such a substance as arsenic is thus found to exercise a recognizable influence, when acting in such extreme dilutions as 1 in 200,000, is a practical demonstration of the benefits which may result from the addition of the small quantity of a dilute drug to the considerable bulk of an individual."

The Surgical Section contains an exhaustive study, by Messrs. James Berry and Paul Guiseppi, of "Traumatic Rupture of the Intestine," with a report of a case of recovery after operation, and an analysis of 132 similar cases, of which 20 recovered, in the various London hospitals. The authors conclude that early operation is the only practical means of treatment, and that if it be delayed until the abdomen becomes distended, or the liver dulness absent, the patient has practically no chance of recovery.

The volume closes with an interesting paper by Dr. Nestor Tirard, followed by a discussion, on the "British Pharmacopœia: its Scope and Object."

Such are some of the principal contents of the present number. As usual, the printing and *format* provide models in excellence which other societies in their publications would do well to copy.

Sport.

Rugby Football.

BLACKHEATH v. GUY'S.

Played at the Rectory Field, on January 16th. Guy's had a full side out, with the exception of Archer, who was playing his first international at Cardiff. Hearty congratulations to Archer on the honour of gaining an England cap, and no man more richly deserves it. Some Guy's men may have seen a criticism of Archer's play in an evening contemporary of Monday, January 11th. I have never seen a more inaccurate comment on a man's play. I should say that the writer had scarcely, if ever, seen Archer play, and had simply written down the first thing that came into his head with regard to the new caps, and Archer in particular. The forward under notice has this year played in most of the Somerset County matches, twice represented London versus Australians, and in four days he played three hard matches, viz., on a Wednesday v. Australians, at Blackheath, the next day he played v. Oxford at Honor Oak Park, and on the Saturday v. London Welsh on the same ground, and this our "Evening" critic points out to you as "a man who shirks the heavy work." I must return to Blackheath ere my pen runs away with my feelings and the Editor's patience.

Guy's had wind and sun behind them, and early gave promise that they were out for points. The pack took a little time to settle down, and Saner had temporary difficulty in finding Medlock when passing out; but these minor troubles were soon remedied, and from midfield our halves and "threes" came away, handling in perfect fashion, Stokes receiving last and touching down close in, to goal himself. Jones and Lee were playing very nicely in the centre, taking passes and making openings cleverly. Jones on one occasion broke through, and Lee took his pass beautifully, handing on for Stokes to trick, with a deceptive movement, Rowbotham and Upson and touch for an unconverted try. Within a minute or so of the drop out Stringer came away, and, passing in, the ball reached Roberts, who grounded close in for Stokes to goal. With the score 13 points to nil in Guy's favour, half-time was taken.

Blackheath had now more of the play, and, putting much more energy into their work, they reduced the margin against them, Ridge-Jones touching down after some straggling work. Stone goaled with a fine kick. Stringer had now gone on the left, outside, and Stokes on the right, and, before very long, Medlock, who was constantly doing good work, gave to Jones, and that player got Stringer away at top pace; partially tackled on the line, he shook clear, and placed a fine try in the centre of the goal. Stokes did the needful. Then came a grand try by Stringer, who, receiving from Medlock, dashed away, cleared the opposition, and ran round Rowbotham with a fine swerve—a brilliant score, indeed. No goal accrued. Blackheath now replied. One man had played well throughout, this was Gotley: with more help he would have been very dangerous. Ridge-Jones and Waterhouse did their best, but the remaining members of the side were not much assistance. Blackheath's second try came from a long kick, which Lacey missed, and Stokes handed over the line; when running for the ball a man hung on to him, and Pillman, dashing up, scored. Stone kicked an excellent goal. Once more Guy's got moving nicely; the ball reached Lee, who, giving Stokes ample room, gave up; Stokes, scenting danger, ran to the inside instead of outwards, left Rowbotham "standing," and gave Guy's their sixth try. Medlock goaled, a feat he repeated with a try gained by Stringer, whose pace was splendid, just as the "long whistle" sounded. Final score: Guy's Hospital, 5 goals, 2 tries (31 points); Blackheath, 2 goals (10 points). Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J. P. Jones, L. Stokes (three-quarters); A. H. Medlock, J. G. Saner (halves); H. R. Mullins, W. E. Williams, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, A. Seabrooke (forwards).

REMARKS.—Lacey, at times brilliant, was a little unsafe in his fielding, and appeared nervous. The three-quarters were on top form, both halves very good, but Gotley should have been better marked; with good men behind him he would have been dangerous. The forwards played well, but they must show a little more "devil" in the loose, and Hoby should not be left to do all the following up. Stranach is also very good in this respect; if the others would emulate Hoby's example it would mean much. The whole side must be congratulated on a splendid win; such form, with the natural improvement one anticipates will ensue before the end of February, should go far to restore the "Cup" to the smoking room.

Association Football.

GUY'S v. SURBITON.

Played at Honor Oak on Saturday, January 9th, and resulted in a win for the hospital by 3 goals to 1. Guy's were not nearly at full strength, but the reserves who were playing proved themselves to be very capable substitutes.

At the outset, Guy's showed themselves to be the better side, the forwards combining well together, and about fifteen minutes from the start Harrison scored with a good shot. Surbiton were unable to make any headway against our defence, and rarely got within shooting distance. Before half-time was called we had increased our lead to 3—0, Wain and Jones each scoring.

During the second half the game deteriorated, our forwards making no real efforts to increase the lead. Surbiton made a few attacks on our goal, but their efforts lacked finish. A rather uninteresting game ended with the score 3—1 in our favour.

REMARKS.—The forwards played well during the first half, but towards the end of the game their attacks were very disjointed, and gave the opposing defence very little trouble. Of the halves, Hole played a very good game, getting through quite a lot of work. Keer showed a very good knowledge of the game, and with a little more weight should prove of great service in the future. Mills, at back, tackled strongly, but was somewhat hampered in his kicking by the slippery state of the ground.

GUY'S v. OLD FELSTEDIANS.

This match was played at Honor Oak Park on Wednesday, January 13th. The hospital accomplished a very creditable performance in winning by 3 goals to love. The Felstedians had a very useful side out, including H. A. Milton, of New Crusaders, and J. W. H. T. Douglas. At the commencement the play was mostly confined to midfield, Guy's, however, getting slightly the better of the exchanges. After twenty minutes' play, Witts opened the scoring with a long shot, which their goalkeeper was unable to hold. Jones and Mitchell were playing well together on the left wing, and from one of their attacks Mitchell scored with a shot which gave their goalkeeper no chance. These reverses seemed to waken our opponents, and they attacked strongly, but found a great stumbling block in Bastard, who played a vigorous game and gave their forwards very little opportunity of settling down. Just before half-time was called, Jones scored from a centre by the right wing.

During the second half the game was much slower, both sides feeling the effects of a vigorous first half. Milton played a good game for our opponents, frequently breaking up the combination of our forwards. Douglas was much too well marked by our halves to be of much service to his side.

There was no scoring during the second half, both sets of forwards playing a disappointing game. Team:—

GUY'S.—H. Rook (goal); H. R. Bastard, C. H. Mills (backs); W. W. Cook, J. T. Keer, P. S. Humm (half-backs); C. Witts, D. McManus, K. H. Hole, T. L. Jones, D. A. Mitchell (forwards).

GUY'S 2nd v. ALLEYN A.

SURREY JUNIOR CUP TIE—3rd Round.

This match was played on Saturday last at Dulwich on a very wet and slippery ground. Guy's started badly, showing none of the usual Cup-tie vigour that one expects, and at the end of ten minutes' play were one goal down. From the restart, however, they gradually recovered, and within two minutes the score was one all, Harrison scoring with a sudden unexpected shot. Soon after this Lewis Jones began to assert himself, and after running half the length of the field scored a clever goal. Guy's were now playing strongly, particularly the forwards, amongst whom Lewis Jones was always prominent. Guy's right wing now became busy, and a beautiful centre from Rice was banged into the net by Mitchell, making the score Guy's 3, Alleyn 1. Before the interval another goal was allotted to Guy's, Lewis Jones again applying the finishing touch. This ended the scoring for the whole afternoon, the second half being very scraggy and slack, probably owing to our easy advantage at half-time. By thus beating Alleyn A by 4 goals to 1, Guy's entered the semi-final round. May they win two more! Team:—

GUY'S.—H. C. Rook (Goal); K. J. Keir and W. Johnson (backs); — Camp, J. A. Edmond, C. E. Reckitt (halves); C. E. Rice, D. Wain, H. Harrison, T. L. Jones, and D. A. Mitchell (forwards).

Birth.

DOUSE.—On December 31st, 1908, at Lyndhurst Avenue, Streatham Hill, the wife of J. Freeman Douse, M.R.C.S., L.R.C.P. Lond., of a son.

Deaths.

COPLAND.—On January 16th, at Banks Terrace, Sheerness, John Brightman Copland, L.R.C.P. Lond., M.R.C.S. Eng., aged 29 years.

JONES.—(By cable.)—On January 1st, at New Zealand, Robert Orford Jones, L.R.C.P. and L.R.C.S. Edin., the beloved and only son of I. J. Knowles-Jones, M.D.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

February.

Sat. 6. 1st XV. v. United Services (Away).
1st XI. v. Croydon Park (Home).
Physical Society. Pathological Meeting. Chairman: Mr. W. H. Trethowan. 8 p.m.

Mon. 8. Clinical Lecture by Mr. Steward (Laryngology), 1.15 p.m.

Wed. 10. 1st XI. v. R.M.A. (Away).

Thur. 11. **Residents' Annual Dance,** Grafton Galleries, 8.45 p.m.
Messrs. Dunn and Rowlands' Take-in (Messrs. Lobb and Townrow).

Sat. 16. 1st XV. v. R.M.C. Camberley (Home).
1st XI. v. Marcians (Home).
2nd XI. v. Kenley (Away).
Dental Society's Dinner, Trocadero Restaurant, 6.30 p.m.

Mon. 15. Clinical Lecture by Dr. Iredell (Actino-therapeutics), 1.15 p.m.
Physiological Society's Meeting, 4 p.m.

Wed. 17. 1st XV. v. Cambridge University (Away).
2nd XI. v. St. John's Hall (Away).
Physical Society: Discussion on Hodgkin's Disease, etc. Chairman: C. M. Plumtre.

Thur. 18. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Syms and Pinching).

Passim.

WE once more call the attention of our readers to the Residents' Dance, which as already announced, is to be held on Thursday next, February 11th, at the Grafton Galleries. Mrs. Cosmo Bonsor will be the hostess of the evening, and the following ladies have most kindly extended their patronage to the dance:—Lady Perry, Mrs. Frederick Taylor, Mrs. W. Hale White, Mrs. Charters J. Symonds, Mrs. W. Arbuthnot Lane, Lady Fripp, Mrs. C. H. Golding-Bird, Mrs. G. Newton Pitt, Mrs. Lauriston E. Shaw, and The Matron. Dancing is timed at 8.45 for 9 o'clock sharp, and carriages may be ordered for 2.30 a.m. Tickets, which are limited to 200, may be obtained (price 10s. 6d. each) from the President, or any of the Residents, and should be applied for as early as possible.

THE present term always includes a number of annual dinners, and several of these functions are to be celebrated in the near future. The Dental Society's, for instance, is fixed for next Saturday evening. Two have already been held. The London University Club Dinner was held in the Balmoral Room at the Trocadero Restaurant on Wednesday evening, January

27th. Surg.-Gen. Branfoot had been expected to occupy the chair, but he was unfortunately prevented from doing so by the effects of an accident. Dr. Tanner kindly consented to take his place. As the evening was a particularly foggy one, some of those who had intended to be present were unable to come. An excellent *menu* was provided, and the customary toasts of the Club were drunk. Mr. Price's songs were greatly appreciated. The Dinner was preceded by a General Meeting. Notice was given of two motions (to be proposed at the General Meeting to be held in October next) aiming at a considerable alteration in the constitution of the Club. Members will be given due notice of this meeting, and should endeavour to be present when these proposals come up for discussion.

ON the evening of January 26th the members of the Chapel Choir were entertained to dinner in the Court Room by the House Committee. Sir Cooper Perry took the chair, supported by the President, Mr. C. H. Fagge, and the Rev. W. A. Dunn, the Senior Chaplain of the Hospital. There were nearly fifty members present, and the dinner proved a great success. The usual toasts were proposed by the Chairman and duly honoured. After this, Mr. C. H. Fagge, thanking Sir Cooper Perry for taking the chair, asked him to convey the thanks of the company to Lady Perry for offering to entertain them for the rest of the evening, and to the House Committee for giving the dinner. He then proposed the health of Sir Cooper and Lady Perry, the toast being received with enthusiasm. Sir Cooper Perry, in reply, thanked Mr. Fagge, and said that he hoped those present would enjoy the rest of the evening, as they evidently had the beginning. After dinner Lady Perry held an At Home, at which many members of the Staff and their wives were present. During the evening songs were given by Miss Hicks, and Messrs. Chapple, Price, and Peall, accompanied by Mr. Depree, who also played Rachmaninoff's "Prelude" with great skill. An impromptu dance brought a very pleasant evening to a close.

AFTER dining and dancing—debating. The Annual Ladies' Night of our Debating Society is on Saturday, February 20th. As this is one of the rare occasions, perhaps the only occasion, when the Club Smoke Room is graced by the presence of ladies, we hope there will be a good muster of members and their friends, and a lively discussion. An interesting subject has been chosen for the debate:—"That in the opinion of this House it is better to have loved and lost than never to have loved at all." Should any speakers think fit to take the reminiscent line, their speeches cannot fail to be at once interesting and pathetic.

ON another page will be found a first list of subscribers to the Residents' Theatrical Souvenir, who have returned the printed forms sent out with recent numbers of the GAZETTE. The preparation of the volume is now in hand; we, therefore, beg any of our readers who desire a copy to fill up and return the form, with their subscription, without delay, so that the volume may be published with all possible promptitude.

WE note with interest that the Lord President of the Council has appointed Mr. Francis E. Fremantle, Medical Officer of Health for the County of Hertford, to be a member of the Committee appointed to consider the working of the Midwives' Act, 1902.

To any one who ever uses the Club Smoking Room the following announcement is of some importance. A Meeting of the Newspaper Subcommittee of the Students' Club will be held shortly. Anyone wishing to make any proposal or recommendation, or to lodge any complaint, should notify the same before February 13th to the Assistant Secretary of the Students' Club, Mr. T. B. Layton, Guy's Hospital.

WE understand that a very searching enquiry is now being made as to the accuracy of all names and addresses on the Medical Register under Section XIV. of the Medical Act, 1858. On 1st February, a circular of enquiry was posted to every registered practitioner, *excepting only* officers of the Navy, Army and Indian Medical Services whose names appear in the

Navy and Army Lists. It is of vital importance to all registered practitioners who have not received an inquiry in course of post, that they should immediately communicate with the Registrar of the General Medical Council, as in the event of no communication being received from them, it will *be lawful to erase their names from the Register* according to the Act, and then very serious disabilities will be incurred.

BY the recent and unexpected death of Mr. George Eastes, of Paddington, in his sixty-eighth year, our medical school and hospital loses a distinguished representative among the ranks of general practitioners. Mr. Eastes was apprenticed to his father, a surgeon in Folkestone, at the age of 15, and in October, 1860, he entered Guy's Hospital. He qualified with the London M.B., and afterwards gained the F.R.C.S. diploma; he served on the resident staff as House-Surgeon, and was then appointed Surgical Registrar, a post he held for two years. In 1868 he acquired a practice in the west end of London, and displayed great activity in all matters connected with the *status* and interests of the profession. He was intimately associated with the work of the British Medical Association, especially the Metropolitan Counties Branch, of which he acted in turn as secretary, treasurer, and president. He was also a member of the Council of the Association, and for many years on the staff of the *British Medical Journal*, during the editorship of Mr. Ernest Hart. He was an active member of various societies, and President of the Harveian Society in 1895. He had previously (1871) published a *Memoir of Harvey*, in whom, as a Folkestone man, he was keenly interested, and his personal effort almost entirely raised the funds for the memorial statue to Harvey which stands on the Lees at Folkestone. Mr. Eastes remained associated with the Guy's surgeons for some time as an anæsthetist, a branch in which he specialised. He was one of the founders of the Society of Anæsthetists, and acted on a committee appointed to consider the action and uses of anæsthetics. In a different way he remained associated with Guy's as the secretary and one of the founders of the Guyite Club, 1863. It originally had forty-three members, of whom now only fifteen survive. He attended and spoke at the opening meeting of our Physical Society in October last. A busy and useful life was closed, after but a few days' illness, on January 23rd. A firm friend, and a man of consistent integrity, George Eastes was a type of the best in our profession.

Some Medical Customs and Usages in China.

IN the GAZETTE for April 4th, 1908, there appeared a short extract from a Missionary Journal, outlining the scope of an examination in medicine, as carried out in China. Subjoined are a few notes culled from a lecture delivered by Dr. Leon de Keyser, before the Belgian Medical Faculty recently, which we think may prove of interest to our readers. They bring before us an aspect of the practice of physic which few of us realized as still existing.

The science of medicine is the acme of simplicity; the body consists of five elements, viz.: water, earth, metal, wood, and fire; in a state of health, all are in equilibrium; as soon as this equilibrium is disturbed, sickness supervenes.

The pulse is the main factor in diagnosis; an intimate acquaintance with its vagaries can be acquired only after two years' study. As instances of its significance, one may cite the following: the pulse felt below the ring finger corresponds, for the right hand, to the state of the patient's lungs and large intestine; for the left hand it corresponds to the heart and small intestine.

The Chinese chemist shops resemble more a florist's than a pharmacist's; flowers, plants, roots and verdant green branches lie about in profusion; cages in which may be seen lizards, frogs and snakes are on the counter, and these reptiles are destined to form a most essential part of some prescriptions. Each plant has attributed to it certain properties thought to be due to its form or colour. Iron, arsenic and mercury, however, are used judiciously, and their properties are thoroughly appreciated.

Superstition and sorcery enter very largely into the field of medicine. There is, of course, a special god, whom the doctor consults. He is known as Cho Sing, and in Canton has a special temple dedicated to him. As a money-earning affair, his success is enormous. He may be consulted in three different ways. Near him rests a large vase of precious water; if events are propitious after prayer, the supplicant pays a substantial sum, and obtains in exchange some of the "divine water"; in lotions or potions its effect is imagined to be miraculous.

Then, again, there is a large bamboo receptacle containing numerous small sticks, each bearing the name of some ailment; the applicant approaches, prays, pays, and draws a stick, whereon is written the illness Cho Sing wills he shall suffer.

The more valiant Chinamen make use of the direct method of consultation. They deposit so many coins in the box attached to the idol, advance bravely, and withdraw two reniform-shaped objects which they drop on the floor; according to the manner in which these objects fall, so may the answer be interpreted.

Superstition is seen in all the important acts of life. A red thread placed around an infant's arms will bring

it good fortune. Children are made to wear hideous marks, so that the god of small-pox will pass them over, refraining from disfiguring what is already so ugly. Processions are organized to appease the evil spirits in times of epidemics, and sacrifices made to them.

One interesting point that the lecturer touched upon was the custom of the Chinese of placing dying persons on the doorstep—for it is a general belief that no patient can die in a house without bringing dire calamities upon it. It is this custom, possibly, which has given rise to the idea that infanticide is so prevalent in China.

A Case of Fractured Patella

By T. B. LAYTON, M.S.

IN the light of an article by Mr. Edward Corner in the *Practitioner* for October last, the following case may be of interest.

J. M., æt. 46, was admitted into the Hereford General Hospital, under Mr. E. W. Du Buisson, on August 26th, 1905, for fractured patella. The patella was broken transversely at about its middle, and the lower piece also had a small bit broken off it at its inner side. On September 5th a flap was reflected upwards, the joint cleared of blood, and two strands of kangaroo tendon passed round the fragments, the small piece of bone also being brought into position. The stitches were removed on the 15th, and passive movement begun on the 25th September. He left the hospital on October 30th, when he could bend the knee up to an angle of 45°. He returned to his work as a milkman about a month later. On January 8th, 1906, he died suddenly from hæmoptysis. This was just eighteen weeks after the operation.

The patella is seen to be firmly joined by bone, in perfect position; across the articular surface a slight irregularity in the articular cartilage shows where the line of fracture passed. On looking at the cut surface of the bone a faint line only can be seen. From the articular surface of the bone all trace of kangaroo tendon has disappeared, while on the anterior surface the two knots can be seen embedded in the quadriceps tendon.

This case shows that the patella can be got to join by firm bony union, and that an absorbable suture is a very good internal splint, yielding an excellent result.

I am able to publish this note by the kindness of Mr. E. W. Du Buisson, who sent me the specimen which will be shown at the Pupils' Physical Society this evening.

Guy's Physiological Society.

AN interesting paper on "Colour" was read before this Society on Monday, January 25th, by Mr. R. D. Passey. Mr. Laidlaw was in the chair.

The author commenced with a description of the retina, and a brief account of vision. He then went on to consider perception of colour, as distinct from ordinary vision.

The fact that "visual purple" is specially abundant in the rods of animals of nocturnal habits, and of animals which live underground, seems to prove that this substance is concerned in the sensation caused by feeble illumination.

Some people who are totally colour-blind, have an extra blind-spot, coinciding with the position of the fovea centralis. As the only nervous elements present in the fovea are cones, these must be defective, and it would seem that this defect in the cones is the cause of the colour-blindness. "From this we may deduce that the cones are the medium through which we appreciate colour sensations, and the sensation of ordinary bright light, whereas by means of the rods we are sensible of light of low intensities, independent of colour. This last statement is confirmed by the fact that visual purple is almost absent in people suffering from night-blindness, and that the defect is greatly modified by use of pilocarpine, which causes a speedy regeneration of visual purple."

The various theories of colour-vision were then discussed at length. The common and some very rare forms of colour-blindness were described, and it was shown that none of the theories propounded up to the present could account satisfactorily for all the forms of colour-blindness.

During the discussion which followed, an interesting machine called "Bett's Chromoscope," was exhibited by the Chairman. By means of this instrument discs of various shapes, having slits of various shapes and sizes in them, are rotated rapidly before a dark back-ground, and as a result various colour-sensations are produced in the eye.

BOOKS RECEIVED.—Scientific Memoir—Government of India, Blackwater Fever; Lamb's Diseases of the Throat, Ear and Nose; Nail and Langridge's Aids to Obstetrics; White's Pathology of Cancer; Charteris' Practice of Medicine; Symington and Rankins' Development of the Teeth and Jaws; Herschell's Soured Milk Treatment; Glassington's Materia Medica; Parts 1 and 2, vol. iv. of Allbutt and Rolleston's System of Medicine; Black's Operative Dentistry; Turner's Prosthetic Dentistry; Ashburton Thompson's Report on a Seventh Outbreak of Plague at Sydney, N.S.W.

Flat-foot.

CLINICAL LECTURE BY Mr. R. P. ROWLANDS.

Gentlmen,—I am bringing before you to-day a girl, aged 17, both of whose feet are flat. The left one is so extremely deformed and rigid that nothing short of an operation can put it right, whereas the right foot is still supple and amenable to instrumental treatment, although it is extremely flat. It would be difficult to show you better examples of the early and late stages of the commonest or adolescent form of the disease.

Do not confuse talipes valgus, in which the deformity is an eversion at the ankle joint, with flat-foot, in which the deformity is chiefly at the medio-tarsal joint. It is true that the two conditions are commonly associated, because they are important causes of each other. In flat-foot the two arches sink towards the flat, and sometimes even beyond it.

(A.) *The antero-posterior arch* is the most important one, and gives way chiefly at the medio-torsal joint, where the distortion consists of :—

1. Flattening, especially on the inner border, where the arch is highest. This allows the head of the astragalus and the tuberosity of the scaphoid to sink towards the sole, and it also makes the inner part of the foot disproportionately long. The astragalo-cuboid joint also sinks, so that the os calcis loses much of its normal obliquity.

2. Abduction of the fore part of the foot, which rotates outwards round a vertical axis near the middle of the mid-tarsal joint. This makes the tuberosity of the scaphoid and the head of the astragalus very prominent on the inner border of the foot.

3. Eversion of the anterior part of the foot, which rotates outwards round an antero-posterior axis, so that the sole tends to face more and more outwards, instead of inwards as well as downwards.

(B.) *The transverse arch.*—Flattening of this is less obvious, unless carefully sought. It makes the fore part of the foot unduly wide, so that the metatarsal bones and the toes require more room, which they rarely get. The result is that the heads of the metarsals get squeezed together by the narrow boot, and some of them escape towards the sole, where bunions form, later to become septic starting-points of perforating ulcers. In other cases the plantar nerves become compressed between the displaced heads of the metatarsals, causing "Morton's disease."

Secondary deformities, such as hallux valgus, flexus, and rigidus, hammer-toe, and knock-knee, follow flat-foot, but time does not allow me to trace their relationship.

The patient before you presents the deformities of the arches in very different degrees of development. She also has hallux rigidus, and some "knock-knee." You will notice that it is impossible to manipulate the left foot into anything like the natural shape, whereas the other one can be forced into a fairly good position. The one foot has been getting more and more misshapen for years, whereas the other has only been giving way for a few months, because it has had lately to bear an undue share of the body weight. In the one the plantar ligaments have become permanently lengthened, the superior and external ligaments have shortened, the bones have altered in shape, and their articulating surfaces have shifted. In the other, only the plantar ligaments and the supporting muscles are at fault.

It may be well for me to mention some of the common varieties of flat-foot before proceeding further :—

1. *The congenital*, as a part of talipes calcaneo valgus, but here the calcaneus and the valgus are much more serious than the flattening of the arch.

2. *The infantile*, starting soon after the the child begins to walk, especially in rickety fat infants of poor muscular development. Here it is associated with talipes valgus.

3. *The paralytic*, especially in infantile paralysis, affecting the tibiales muscles. This cause is easily overlooked, if the patients are seen for the first time when the paralysis has partly recovered. Flat-foot sometimes follows severe sciatica.

4. *The adolescent form*, coming on in rapidly growing youths who have to stand a great deal, and especially have to carry weights such as a baby or a basket upon one arm. Lazy habits of standing at ease with the toes turned out are also important causes.

5. *The gonorrhœal.*—You may have seen patients who have almost suddenly developed flat-feet after an attack of gonorrhœa, with secondary inflammation of the plantar ligaments and fascia.

6. *The traumatic.*—Occasionally a weight falling on the instep may lead to a genuine traumatic flat-foot, with or without fracture of the tarsal bones. I have recently seen such a case in which the X-rays failed to show any sign of fracture. Of far more frequent occurence is that terrible variety of flat-foot which follows the talipes valgus that is too often left after Pott's fracture, this condition, which cripples many patients for life, is the most intractable of all varieties of flat-foot; the widened malleolar mortoise gives way more and more under the patient's weight, the foot gets gradually flatter, and arthritic changes gradually develop in the ankle, knee and hip joints.

Talipes valgus and flat-foot may also follow fractures of both bones of the leg, unless the normal curve of the leg is preserved. Very frequently the leg set too "straight," the lower part of it being slightly or considerably abducted as compared with the same part of the other leg. Thus, the body weight is thrown upon the inner border of the foot, with the inevitable result.

Treatment.—In its early stages, flat-foot is amenable to treatment by simple means, which, if only taken in time would abolish the need of instruments and operations, except in a few cases. It is of the first importance to correct the bad habits of standing and walking with the toes turned out, for in this position, the supports of the chief arch are unduly strained by the weight of the body which falls far too near the inner border of the foot. This is especially true, for "standing at ease," when the whole weight is borne by one abducted foot, usually the right, which is, therefore, the one most often affected. With a little trouble, the patient can be taught to walk "straight," and to stand always with the toes turned in. He soon notices that the pain returns if he forgets these precautions. Above all, the lazy habit of standing at ease must be given up.

Moderate exercise of all kinds does good by improving the general health, but there are certain local exercises which are of especial value. Walking upon tip-toe, with toes turned in as much as possible is the best, for this not only increases the strength and tone of the tibiales muscles, but also uses all the body-weight to adduct, and invert the fore part of the foot from the medio-tarsal joint. Walking upon the outer border of the foot obviously helps to correct the talipes valgus, which usually co-exist with flat-foot.

In addition to the walking exercises, it is of value to endeavour to correct the deformity of the foot by means of active and passive movements which develop the adductor muscles, and stretch shortened ligaments, making the foot more powerful and more supple, respectively.

These exercises are best done barefooted, and can be most conveniently done in the bedroom, night and morning. At first, they are very tiring if continued for more than a few minutes, so that it is advisable to rest after them. For this reason, it is best for children to do their morning exercises just before the usual morning sleep.

Boots and Instruments.—The boots should fit well, and have nearly straight inner borders. The heels and soles should be wide enough to prevent the upper from turning over, and the inner borders should be elevated sufficiently to make the feet assume a slightly inverted position. For the greater support of the arch the heel may be prolonged forwards along the inner border, and a carefully moulded leather or rubber pad may be fixed inside the boot. In any case, the upper should be firm at the sides.

In more severe cases, a concealed jointed spring may be inserted between the leathers on the outer side of a boot, which extends well up the leg. When the boot is laced up the foot is brought outwards into the corrected position against the covered spring, which is concave towards the foot. The lower end of the spring is continued into a moulded sole-plate. This apparatus is most useful for cases of only moderate severity, when the patients refuse to wear any visible "irons."

Metal plates, for the direct support of the antero-posterior arch of the foot, are rarely to be recommended for the young, who should endeavour to obtain a permanent cure by more rational means. Plates are always difficult to leave off, because they do not sufficiently increase the natural strength of the arch, which gives way again when deprived of its artificial support. If somewhat elastic, they are very useful, however, for older people, who cannot expect a complete cure, but are quite content with comparative comfort. The plate must be made to fit exactly, and for this a model of the foot, in its corrected position, must be taken. Ready-made plates are generally useless and painful.

A good plate not only supports the arch, but also inverts the foot, and therefore brings its centre nearer the axis of the leg. As the arches rise, higher and higher plates are required to give relief. Plates are very valuable for use inside indoor shoes. They have the great advantage of being concealed.

The most effective apparatus for the cure of flat-foot consists of external and internal side

irons, extending from the heels to just below the knee-joint, together with a powerful T valgus strap. This strap, when tightened, corrects the valgus at the ankle, and the abduction and eversion at the medio-tarsal joint, and thus raises the inner border of the antero-posterior arch. A single external iron is sufficient for mild cases, but it is more easily bent or broken. These supports may be combined with boots of the kind already mentioned.

The constant use of these simple instruments for about eighteen months or two years will cure all but the worst cases of the common or adolescent flat-foot.

Some neglected flat-feet are so deformed and so rigid as to be beyond hope of correction by such simple measures as massage, movements and instruments. The latter may either fail to relieve symptoms, or even be intolerable. For such cases some form of operation should be considered and undertaken in suitable cases. The shortened peronei may need subcutaneous division, and so may the tight heel-tendon. The ligaments above and external to the medio-tarsal joint may require severing. Then forcible adduction and inversion may bring the foot into a good position. In other cases it is necessary to remove some bone from the depressed inner border at the medio-tarsal joint. A wedge is excised including variable amounts of the scaphoid and head of the astragalus. The foot is then forced into a good position and kept at rest until firm union has taken place. To prevent recurrence of the deformity, it is essential to use apparatus in the after treatment. A valgus pad inside the boot, a T valgus strap, together with an external side-iron, should be used for a year or eighteen months. The active and passive exercises already described should be assiduously carried out during the same period. When these obvious precautions are neglected, the foot becomes flatter and more rigid than ever.

In some instances, the removal of the head and neck of one of the metarsal bones may be necessary to relieve the pain arising from pressure upon the digital nerves by the sunken bony prominences. A troublesome plantar bunion, due to the same cause, may be cured in the same way.

If treated early, the flat-foot which is due to the talipes valgus, following Pott's fracture, can be corrected by breaking the fibula and bringing the external malleolus and the foot inwards into their proper positions. This can only be well done by means of a carefully planned aseptic operation, guided by X-ray photographs taken in two planes, at right-angles to each other. The fibula is divided obliquely at the site of fracture, where both fragments are adducted almost into contact with the tibia. To bring the bone out into its natural position the inter-osseous membrane has to be freely divided.

It is also wise to divide the shortened tendo Achillis and the two posterior peronei, all of which are powerful displacers of the foot. When the fibula is broken, the bones are fixed in position by means of a plate and screws.

In some cases of flat-foot, due to complicated fractures involving the ankle joint, with fibrous ankylosis, division of the fibula does not do much good. In these, tenotomies and wrenching, followed by massage, movements and instruments, are sometimes very satisfactory, and may enable a man to work again.

I wish to lay stress upon the great importance of correcting all abduction and equinus in the treatment of Pott's fracture. Passive and active movements are also essential after three or four days. Moreover, a patient with a Pott's fracture should not be allowed to put any weight upon the foot until firm union has occurred, otherwise the fibula gradually bends at the soft union, and the external malleolus gets more and more abducted. To prevent this, an external side iron and a T valgus strap are valuable, both after Pott's fracture and after a secondary operation for the correction of the deformity.

Notices.

Special classes in Operative Surgery and Advanced Surgical Pathology for the Final F.R.C.S and M.S. Examinations will be held by Mr. Rowlands, as follows:—

Operative Surgery.—Wednesdays and Saturdays, at 9.30 a.m. (In Operative Surgery Class Room).

Surgical Pathology.—Mondays and Thursdays at 4.30 p.m. (In the Museum.)

First Class, Monday, March 15th.

Students intending to take these Classes are requested to send in their names to the Medical School Office at an early date.

School Examination and Revision Classes in Medicine.

The next School Examination in Medicine will take place in the Medical School Offices on Monday, February 22nd, at 10 a.m. (paper), and on Wednesday, February 24th, at 3 p.m. (viva voce).

The Revision Classes in Medicine will begin on Monday, March 1st, and they will be held in Class Room III., on Mondays at 9.15 a.m., Tuesdays at 9.15, and Wednesdays at 9.15.

Admission to the Revision Classes can only be granted after the School Examination has been passed.

Infantile Paralysis.

By H. C. MANN, M.D., M.R.C.P. Lond.,
Physician to Out-patients, Evelina Hospital for Sick Children.

A FEW notes of some sixty cases of infantile paralysis which have appeared among my out-patients at the Evelina Hospital during the last three years may be of interest.

First of all, with regard to age and sex incidence. Everybody knows that the disease occurs equally among boys and girls. These cases are no exception to the rule; thirty-three boys and twenty-eight girls having been affected. Then a striking feature of all the recorded observations has been the high percentage of children attacked during the first two years of life, and my cases again show the same peculiarity. During the first year of life there are thirteen, during the second year thirty-six. Six cases occurred at the age of three, two at the age of four. The fifth, sixth, seventh, and twelfth years are each responsible for one case. Another point which has received attention is the question of seasonal prevalence, and in a series of cases numbering four hundred and fifty, from four different observers,[1] over three hundred and twenty occurred during the months of June, July, August, and September. I find that my cases are spread almost equally throughout the year, though I remember that, in July, 1907, we saw seven cases at the Evelina, and in the same month I either saw or heard of four others at Guy's, starting with the usual sudden onset, and all coming from either Southwark or Bermondsey homes. So that, possibly, if the disease does occur in epidemic form, it is during the hot summer months. Then one hears of traumatism as an exciting cause in infantile paralysis, but I cannot definitely label any of these as occurring directly after an accident, and as it is the rule, in a children's out-patient department, for the fond if ungenerous parent to promptly accuse the neighbour or nurse of negligence or brutality, as the case may be, in any case of unexplained illness one tends rather to turn a deaf ear to such stories.

Much more important is the connection of the disease with other infective processes. In eight cases it directly followed pneumonia (Nos. 1, 5, 11, 19, 34, 45, 55, 56). In five cases pneumonia had occurred either in the same house or in the house of a neighbour (Nos. 6, 8, 20, 26, 52). Two of the children had been in contact with scarlatinal returns (Nos. 17, 51). Two others showed, in addition to the usual symptoms of infantile paralysis, signs of nephritis (Nos. 45, 49). Yet another child developed signs of meningitis, and died about six weeks after the onset of a right-arm paralysis, in Charity ward, at Guy's, where the mother was an in-patient (No. 36). In four of the cases a rash was present (Nos. 15, 46, 48, 54). In certain of the other cases there was the possibility of some connection with infective processes, but the proof was not conclusive.

Turning to the symptoms, there is no doubt that the disease shows considerable variation in the matter of onset. In the great majority of cases the symptoms appear suddenly, accompanied by fever, and nearly always by convulsions. Fifty-two out of sixty-one cases started quite suddenly, and in thirty-five of these convulsions were present. Though a severe and sudden onset nearly always means extensive trouble, the converse is by no means true, as in two of the worst cases now attending out-patients the symptoms appeared gradually, and apparently without fever.

Now there is a great variation to be observed in the extent of the lesion, and it is on this account that I have thought it worth while to collect my cases, detailing those which present symptoms making it clear that the term acute anterior poliomyelitis, by which the disease is generally known, is a bad one, because it is too exclusive.

Firstly, then, with regard to the paralysis. It is almost always more extensive in the initial than in the final stage, where there is permanent trouble. A glance at the appended tables shows the differences observed with regard to the number of limbs affected at early and late stages, and these differences are less apparent than real, because the paralysis remaining in any limb had often affected only one group of muscles, whereas, in the early stages, the limb was quite helpless. It will be noticed that in one case (No. 60), in which the legs were affected in the initial stage, there was a recovery recorded. Dr. Starr, in the article above mentioned, states that, "it is very rare for a complete recovery to take place after an attack of infantile paralysis; even in the lightest cases there is usually some weakness, slight atrophy, and coldness left, and one or two muscles will be particularly feeble." As far as I could tell, in the above case, there was not the slightest evidence of permanent paralysis.

The next point which the student may raise is, how soon may I expect an improvement? and does it follow that when I have found the extent of the initial paralysis, I know the worst? In reply to the latter question, Dr. Goodhart[2] states definitely, "There is no progressive character about the disease, the mischief appears to be worked at once and then ceases." I can, however, quote one case (No. 35) in which the child was brought to the hospital on the first day, and careful examination showed a paralysis affecting the right leg. The arms were moved freely in all directions and without pain. Two days later the right arm was paralysed as well, and this latter limb is the one which has remained permanently affected, the child having recovered the use of the right leg within nine months.

With regard to the former question of return of power in the affected limb or limbs, an improvement may be noticed within a week of the onset, and if recovery is going to take place, it is rarely delayed beyond six weeks (No. 49). I have known a delay of ten weeks before there was any sign of recovery (No. 17). Writers seem to be agreed that in three months time from the onset the extent of the permanent paralysis is known; the muscles then remaining paralysed will not recover

though the full value of improvement in other groups is uncertain. In connection with this latter point, Dr. Starr states that, "the period of steady improvement may extend from six months to a year," so that Case No. 54 of my series is interesting, as the girl was certainly showing signs of improvement for as long as two years after the attack. Recently I have lost sight of her.

With regard to the limbs affected, it will be noticed that trouble occurs more frequently in the lower extremity. It involves more commonly the peroneal muscles, sometimes in combination with the anterior tibial, and, more rarely, peroneal anterior and posterior tibial groups are all involved. In one of the above cases weakness was persisting only in the last-named group. Then next in order of frequency there is a type of case in which all muscles both of the thigh and leg are affected, from which there may be partial recovery or an absolutely useless limb. The upper extremity is affected more often in combination with a lower limb paralysis as a hemiplegia, as a crossed paralysis, or paraplegia. Occasionally all four limbs are involved. In a smaller percentage of cases the upper extremity was affected alone or with its fellow of the opposite side. Permanent paralysis of the upper limb involves, in my list of cases, more often the shoulder muscles than the forearm groups, but, as in the lower extremity, both proximal and distal groups may be affected together, or the latter trouble may persist alone. Permanent widespread paralysis of extremities and trunk has been found but rarely. Sinkler quotes twenty-two cases out of two hundred and thirty-five, but this must be very exceptional, as in a series of two hundred and twenty cases, by three different observers, Gowers, Starr and Barlow,[3] it was noted only four times.

But the most interesting facts obtained as a result of a hunt among out-patient letters are in connection with sensory disturbance. Dr. Starr, in the article quoted above, refers to the fact that pain may be present at the onset and persist for some time, but writes that "there is no loss of sensation or complaint of paræsthesia." It must be remembered, however, that the great majority of cases occur in children under the age of three years. No "complaint" is made at such an age of sensory disturbance, and doubtless on this account it has often escaped notice. In no less than forty-nine cases, out of the series of sixty-one, great pain was noticeable in the affected limbs on movement. Of these forty-nine cases thirty-two were examined by me within two days of the onset of paralysis, and at that stage hyperæsthesia and pain on movement were invariably present. Mr. Mollison tells me of another which he has recently seen. The other seventeen cases were seen at varying intervals of time after the trouble had started, and pain was still present, or a history of it was volunteered by the relative. It is an interesting fact that in the case of the child, age twelve, the oldest of my series (No. 57), hyperæsthesia, followed by anæsthesia, to which attention was drawn by the patient, was a marked feature of the case. Anæsthesia was present, variable in extent, and not corresponding to the distribution of any peripheral nerve or nerves, in fifteen out of sixty-one cases. That is to say, that as a result of pricking the skin with a needle or prodding viciously with a pen the child appeared to suffer no pain, though other parts of the body were fully sensitive. In one case this inability to appreciate sensory stimuli was present within twenty-four hours of the onset of paralysis; usually it appeared upon the second or third day; in none of the fifteen cases was any impairment of sensation detected after three weeks. In four of the cases cutaneous anæsthesia existed with tenderness of muscles beneath, these muscles belonging to one of the paralysed groups. Such findings suggest that in infantile paralysis the inflammatory process is by no means confined to the anterior cornual cells, but invades other tracts of the cord, and in support of such views case No. 42 is interesting in that the child had a paralysis of both arms, with brisk knee-jerks and spastic lower extremities. The trouble came on quite suddenly, with fever and a convulsion. When I last saw the child, nine months after the onset, the left arm remained paralysed, the right had recovered; the lower extremities were still somewhat spastic, and the knee-jerks brisk in response.

In the case of another child, a girl aged seven (No. 43), the right arm is wasted and paralysed, there is wasting of the glutei, quadriceps, and adductors of the thigh on the right and to a less extent on the left, giving rise to great difficulty in walking and rising to the erect position. At the same time ankle clonus is readily obtained on both sides, with a brisk knee-jerk, and Babinski's sign on the left side, the legs being spastic. The history is that at the age of twenty months she was seriously ill, the nature of the illness was unknown, but it came on suddenly, and since then she has never been able to walk. In this case the inflammatory process was evidently not limited to the anterior cornua.

It has been suggested by Dr. Buzzard and Sir W. Gowers (4), that these cases of acute paralysis in children, associated with sensory disturbance, are, in reality, examples of an acute polyneuritis; the occasional occurrence, however, of such signs as those mentioned above, especially a dissociation of sensory trouble, the presence of the kinæsthetic sense with absence of pain and tactile sensation, is strong evidence in favour of regarding the disease as a myelitis not confined to the anterior cornual cells alone, but involving at times afferent and efferent tracts. If the latter view be correct, it would naturally be expected that bladder and rectum trouble will occur as symptoms of the disorder. But as with the sensory symptoms mentioned above, so with this latter trouble, there is considerable difficulty or impossibility in proving its presence in children so young as the majority of these cases. In the case of the girl aged 12 (No. 57), there was a history of incontinence of urine lasting for a considerable time after the acute symptoms had abated. In twenty other cases diarrhœa was incessant and lienteric in character, there being apparently no control. In the cases of ten more children diarrhœa was mentioned, as was also frequency of micturition, but these are troubles so generally associated with

febrile disturbance in childhood that it is impossible to estimate their importance. Without them, however, the clinical picture would be imcomplete.

With regard to prognosis, I have mentioned above certain general rules which are of service, namely, that after a variable interval of one to ten weeks from the onset of paralysis you will discover which of the muscles are recovering, that in three months time you will know the extent of the permanent paralysis. But the unexpected has a knack of occurring in medicine. Pleasant it often is to the patient, if unpleasant to the prognostician, and never does the unexpected occur so often as in diseases of childhood. Only recently Mr. Openshaw[5] showed at the Clinical Section of the Royal Society of Medicine a case of infantile paralysis affecting the quadriceps which had recovered at the age of eighteen, after twelve years of uselessness. For the vast majority of cases, however, the above-mentioned limits will be correct. If in the interval of waiting for a return of function in the paralysed muscles it is found that there is a response to either galvanic or faradic stimulation, improvement may at least be expected. So long as faradic excitability is present, the probability is that the muscle will recover completely, though with response only to galvanism there is a *possibility* of a gradually diminishing reaction and a permanent paralysis. On the other hand, I have known instances of considerable recovery when reaction to both forms of stimulation had been lost.

A few cases have been quoted in which death has occurred. Some of these have been due to involvement of the cervical cord with implication of the diaphragm, others have been thought to be due to involvement of the motor nuclei of the medulla. A little girl (No. 61), aged three, was admitted under my care at the Evelina hospital with the following history: she had been put to bed by the mother the night before admission, apparently in quite the usual health, and she was a robust child. Next morning she was in great pain, and was paralysed in all four limbs when seen by a medical man in the forenoon. She was sent up to hospital. I found her the same afternoon unable to move any of the limbs and in a drowsy condition. There was no cephalic retraction, strabismus, or optic neuritis. She had vomited twice since admission. The temperature was 104°. There had been no convulsion. Half an hour later she died suddenly. At the autopsy, which was performed by the house physician, slight excess of fluid was found in the subdural space, no lymph or cortex upon the cortex, and some excess of cerebrospinal fluid tinged, with blood, within the ventricles. The cause of death as given on the death certificate by the resident, was "meningitis." No obvious lesion was present, but, unfortunately, the brain was not hardened. I think that this was probably a case of acute polio-encephalitis due to an extension upwards from the spinal cord. Case No. 36 is also an example of cerebral symptoms complicating the trouble, followed by death.

Judging from one's experience as a registrar, infantile paralysis is seen at Guy's only rarely at the acute stage, usually some months, or even years, after the onset of symptoms, when permanent paralysis, contractures, displacements of joints, and deformities have supervened, too often endowing the otherwise healthy adolescent with a life-long handicap. Of the success which has attended the treatment of these sequelæ, the skill of the orthopædic surgeon in the matter of tendon grafting, the ingenuity of the instrument maker in devising light and non-cumbrous apparatus, this is no place to speak. Everyone knows that the cripple has often been enabled to throw away his crutches.

The commonest deformity occurring as a result of infantile paralysis is that of spinal curvature, a scoliosis resulting from a tilting of the pelvis due to a short leg. The commonest deformity, as seen at Out-patients', is some form of talipes following paralysis or paresis of the muscles below the knee. More rarely scoliosis may be due to weakness of the trunk muscles, contractures may be seen about the wrist, or deformity at the shoulder, owing to displacement of the head of the humerus from the joint, the result of a paralysed deltoid.

It is, however, for treatment during the early stages of the illness that the case comes under the care of the physician, and, with the knowledge that infantile paralysis is due to an acute inflammatory process in the cord, often accompanied by hæmorrhage, rest for the little patient is of the first importance. Occasionally pyrexia or hyperpyrexia may demand attention. Cold sponging with water, reduced from 90° to 60° F., is easily carried out, and usually efficacious, the child, after it has been sponged, being left for a while to shiver under a sheet. It is well to remember that when it is desired to lower temperature by bathing, in the case of young children, that a hot bath at 103° to 108° F., in which the child is placed for a few minutes only, succeeds nearly always better than a cold one. Then there is the method of the cold water enema, given as a colon wash-out, with water, at a temperature of 50° F., by means of a double tube. With threatening convulsions and a persisting pyrexia it is advisable to use antipyretic drugs, and for a child a year old a dose of one or two grains of antipyrin, repeated in an hour's time, works exceedingly well. Owing to pain and tenderness in the affected limbs it will be found impossible to start systematic massage during the stage of pyrexia, but, from the very first, all possible movements should be practised passively at the different joints. The request of the out-patient parent is, of course, for electricity. To the lay mind electricity is a *sine qua non* in the treatment of infantile palsies of all sorts, and, as a result, to the quack with the electric belt or the magneto-electric jacket a glorious harvest has accrued. But the widespread belief in the efficacy of electricity is only equalled by the widespread ignorance of its limitations, and it is a considerable shock to the mother when she learns that even when "given with sparks," as was requested in the graphic phraseology of one parent desiring it, such treatment does not affect, in any way, the course of the disease. Electricity, of course, is of service in promoting muscular action when voluntary movement is impossible, and in thus furthering those

chemical changes which occur with muscular activity and growth. For this purpose faradism may be applied for fifteen minutes daily to any of the muscles which still respond to that form of stimulation, these being muscles, as has been said above, which will eventually recover. Other muscles, more completely paralysed—and for these faradism is useless—will be found to respond only to galvanic stimulation, which may be applied in the form of an interrupted current with the anode on the muscle, or as a rapid reverse.

But there are grave disadvantages to the application of electricity. There is a considerable amount of pain resulting from its administration. While the memory of the illness is still fresh in the child's mind he is frightened by the merest trifles, and if he is seen some months after the onset of trouble, there have been so many tumbles on the gravel-path, so many unexpected falls down the staircase, that he has become a nervous, highly-strung, excitable child, and the appearance of a mysterious-looking box, still more the display of anything suggesting "wires," leads to an immediate rupture of diplomatic relations. Anyone, even the veriest novice, who has had anything to do with children knows how easy it is to gain and to hold the confidence of a child when an attempt is made in the right way, how irreparable the breach that opens when once that confidence is lost. One naturally endeavours to preserve relations of peace. If my surgical colleague were to read these lines, he would understand the reason why so many cases are referred for post-nasal examination from my out-patient department to his. A forefinger in the naso-pharynx is a crime a child neither forgets nor forgives. Every subsequent entry into the room is made only under protest and with suspicion, every subsequent examination is a struggle. So with the administration of the battery, its appearance, as Dr. Goodhart says, "is the sign for screams or tears," and in the case of these tiny children, the subjects of infantile paralysis, it becomes a nightmare and a terror.

Massage to the affected limbs, given twice daily for about a quarter of an hour, succeeds equally as well as electricity, without the disadvantages of the latter. I usually arrange that the parent should receive some instruction from Sister, so that treatment can be carried out at home as soon as the hyperæsthesia has cleared up. Then, with the earliest evidences of return of power, resistance exercises—the Wiederstand Gymnastik of Nauheim—should be started, and the parent taught how to gradually increase resistance to individual and combined movements as week after week passes. Bathing, not in cold, but in warm water (temperature 98° F)., is also very useful at this stage, and the child encouraged to splash and kick about for half an hour daily.

Everyone knows what chilly mortals these children are, and is acquainted with the cold, blue, dwarfed and often deformed limb, the martyrdom of a bright child's life. They must be suitably clad, and for hospitable out-patients, a very cheap and efficient way of keeping the lower extremities warm is by double stockings, the outer stocking of so much larger size than the under one, which must on no account be tight, that a thick layer of cotton wool can intervene between the two.

Spontaneous recovery, according to Dr. Starr, will have reached its best at the end of the first year, but there is no doubt that steady, though slow, improvement may be noticed during a period of two years, and occasionally cases are met with similar to that of Mr. Openshaw, with recovery after a considerable time. There is therefore scope for ingenuity in devising games, playthings, and other amusements which will put into action, first of all to a very slight extent, and later when improvement is exhibited, in more vigorous fashion, the offending group or groups of muscles. In other words, the system of "resistance exercise" is introduced into the nursery without the knowledge of the child. I have been astounded at the rapid improvement made in some of these cases, and have quite given up ordering electrical treatment with its great disadvantages. Some of the permanent paralyses, especially those about the shoulder-joint (Nos. 32, 33, 34, 37, 40, 52), are very distressing, as the displacement of the humeral head from the glenoid cavity owing to deltoid weakness produces a mechanical disadvantage for the remaining muscles about the joint which are unaffected. For such conditions the assistance of the surgical instrument maker will be required, and some form of brace employed to keep the joint services in contact. The troubles that almost invariably arise are in connection with the cost of the instrument, which is usually exorbitant, the fitting of the instrument, which is often clumsy, and also to the constant alteration and readjustment necessitated by the growth of the limb. Some forms of pathological dislocation defy all ingenuity—surgical interference is necessary—and Mr. Ralph Thompson tells me of such an one under his care at the Children's Hospital, Chelsea, where for double posterior dislocation of the knee-joint, he has performed excision of the joints with complete success. I am indebted to him for the notes of this case. Excellent results of tenotomy and tendon grafting are often seen at Guy's, but the discussion of them does not fall within the scope of this article, which has been written with the idea of supplying notes of that acute stage of infantile paralysis which is only rarely seen at a general hospital, and which gives rise to both motor and sensory phenomena.

Since writing the above notes, I have seen yet another child with marked sensory changes during the acute stage. A baby-girl aged two years was taken ill early in the morning of January 27th with a convulsion. At midday, the left arm was found to be paralysed. The child was brought up to the Evelina in the evening, and was seen by the Casualty officer, who found the left arm completely paralysed. He made a careful note of the fact that there was no anæsthesia, though the muscles were tender on palpation. On the afternoon of the 28th I saw the child, and the anæsthesia was well-marked over the shoulder joint, the scapula in its upper part, and the whole of the upper extremity, with the exception of a small area on the flexor surface of the fore-arm. The

arm could be pricked or pinched over the whole of this area without any evidence of pain to the child. The left side of the face was also paralysed without anæsthesia. No other paralysis was noticed. On February 1st we again saw the child together, and in addition, the lower extremities were paralysed, with absent tendon reflexes and painful muscles, another instance of a progressive form of infantile paralysis. The anæsthesia of the left arm remained unchanged, none could be detected in the lower extremities.

TABLE I.—AGE INCIDENCE.

First year.		Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.	Seventh year.	Twelfth year.
Under 6 mos.	Over 6 mos.							
3	10							
13		36	6	2	1	1	1	1

Total 61. Recovered partially 58. Recovered completely 1. Died 2.
Boys 33. Girls 28.

TABLE II.—DISTRIBUTION OF PARALYSIS.

(1) Permanent paralysis.		(2) Initial paralysis.	
(*a*) Both legs	4 cases	3 cases ...	One arm and both legs.
		1 case ...	Both legs.
(*b*) Right leg	13 cases	7 cases ...	Right leg only.
		4 cases ...	Both legs.
		1 case ...	Right leg and right arm.
		1 case ...	Right leg and left arm.
(*c*) Left leg	11 cases	5 cases ...	Both legs.
		4 cases ...	Left leg only.
		1 case ...	Both legs and left arm.
		1 case ...	Left arm and left leg.
(*d*) Right arm	8 cases	6 cases ...	Right arm only.
		2 cases ...	Right arm and leg.
(*e*) Left arm	6 cases	3 cases ...	Left arm only.
		1 case ...	Both arms and left leg.
		1 case ...	Left arm and leg.
		1 case ...	Both arms.
(*f*) Arm and leg	15 cases—		
Same side	10 cases	6 cases ...	Arm and leg same side.
		2 cases ...	All four limbs.
		2 cases ...	Two legs and one arm.
Opposite sides	5 cases	4 cases ...	All four limbs.
		1 case ...	Two arms and one leg.
(*g*) Trunk muscles and glutei	2 cases	Uncertain. All four limbs said to have been affected but especially the legs.	
(*h*) No permanent paralysis and recovery	1 case	Both legs were paralysed in the initial stage.	
(*i*) Death	1 case	All four limbs paralysed.	

Total 61 cases.

TABLE III.—LIST OF CASES CLASSIFIED ACCORDING TO TABLE II.

PERMANENT PARALYSIS. (*a*) BOTH LEGS. 4 CASES.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
1	B. 6 months	Right arm, left leg completely paralysed. Right leg below knee	Immediately followed broncho-pneumonia. Sudden onset with convulsions	Hyperæsthesia right arm, left leg	Diarrhœa. Pyrexia 104·2°.
2	B. 2 years	Left arm and both legs paralysed	Convulsions	Hyperæsthesia	Diarrhœa.
3	B. 1 year	Right arm and right leg paralysed completely. Left leg below knee.	Sudden onset. Drowsiness. No convulsion. Sickness	Hyperæsthesia	Nil.
4	G. 1 year	Both legs paralysed ...	Indefinite history. Gradual onset	Hyperæsthesia at first followed by anæsthesia of both legs, but more marked in the left leg	Diarrhœa very frequent. Evacuations.

(*b*) RIGHT LEG. 13 CASES.

5	B. 2 years	Right leg paralysed ...	Immediately followed pneumonia (lobar)	Nil	Diarrhœa.
6	G. 1 year	Anterior and peroneal groups paralysed	Mother in bed with lobar pneumonia when child became ill	Nil	Pyrexia 104°.
7	B. 2 years	Right leg completely paralysed	Convulsions	Hyperæsthesia	Diarrhœa and sickness.
8	G. 2 years	Ditto	A sister was in bed with broncho-pneumonia when the attack started	Hyperæsthesia first, then for a week some numbness of both lower extremities	Sickness.
9	G. 2 years	Anterior and posterior groups paralysed in right leg.	Convulsions	Hyperæsthesia	Diarrhœa.
10	B. 1 year	Complete paralysis below the knee, right leg	Convulsions	Hyperæsthesia	Diarrhœa.
11	G. 3 years	Complete paralysis of right lower extremity	Followed pneumonia. Convulsions, vomiting, profuse sweats	Hyperæsthesia	Diarrhœa. Pyrexia. 104·6°. Delirium.
12	B. 2 years	Both legs were completely paralysed	The child was teething when it was taken ill	Nil	Diarrhœa, vomiting.
13	B. 2 years	Ditto	History indefinite ...	?	Diarrhœa. Said to be very feverish.
14	G. 2 years	Ditto	History indefinite ...	?	Nil.
15	B. 2 years	Both legs affected, the left more than the right.	Convulsions. A "rash" said to have been present. Sweating.	Child seemed to be in pain whenever the limbs were moved.	Diarrhœa.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
16	B. 2 years	Right leg and right arm completely paralysed.	Sudden onset. Child irritable ; later drowsy.	Hyperæsthesia	Diarrhœa. Sickness.
17	G. 4 years	Rt. leg completely paralysed, and muscles about the left shoulder joint.	This child had been in contact with a scarlatinal return case a fortnight previously.	Hyperæsthesia at first. Later anæsthesia of left arm, with tenderness of muscles. Impaired sensation in lower extremities.	Hyperpyrexia. 105.2°. vomiting.
		(*c*) LEFT LEG. 11 CASES.			
18	G. 1 year	Both legs paralysed below the knees.	Gradual onset. The child had been poorly for a fortnight before paralysis was noticed.	Nil	Nil.
19	G. 1 year	Ditto	Followed broncho-pneumonia.	Hyperæsthesia	Diarrhœa.
20	B. 2 years	Complete paralysis of both lower extremities.	The child had been in contact with a pneumonia-patient.	Pain in the lower extremities.	Nil.
21	B. 2 years	Ditto	Convulsions	Hyperæsthesia on second day. Impaired sensation in both lower extremities noticed on fourth day, which lasted for a week.	Diarrhœa.
22	G. 2 years	Ditto	Sweating. Onset not very acute. Child peevish.	Nil	Nil.
23	B. 2 years	Left leg paralysed, anterior and peroneal groups	Sudden. Feverish symptoms	Hyperæsthesia	Nil.
24	G. 1 year	Ditto	Sudden onset. Sickness, convulsions	Nil.	Diarrhœa.
25	B. 2 years	Ditto	Indefinite history. Onset apparently gradual	?	Nil.
26	B. 2 years	Left leg paralysed below the knee	A brother under treatment for broncho-pneumonia. Sudden onset of paralysis	Pain in the paralysed limb	Nil.
27	G. 2 years	Both legs were paralysed, the left leg completely, the right leg below the knee. The muscles of the left upper arm, and about the shoulder joint	Onset was sudden. The child had a restless night, and next morning was found to be paralysed	First of all there was hyperæsthesia of all four limbs, and pain on passive movement, then apparently numbness of the three paralysed limbs, which passed off in four days.	Diarrhœa. Pyrexia. 103·8°.
28	G. 5 months	Left leg completely paralysed, and also left upper extremity. Small muscles of hand not involved	Convulsions	?	Diarrhœa. Vomiting.

(*d*) RIGHT ARM. 8 CASES.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
29	G. 2 years	Right arm completely paralysed	Sudden onset. Child irritable	Nil	Nil.
30	B. 5 months	Ditto	History indefinite	Nil	Nil.
31	B. 2 years	Right arm completely paralysed.	Sudden onset	The arm was said to be tender to the touch.	Nil.
32	G. 2 years	Muscles about the shoulder paralysed and upper arm. No paralysis below the elbow, but weakness of extensors.	The child was fretful for 3 days, then paralysis was noticed.	Nil	Severe diarrhœa.
33	G. 3 years	Ditto	History indefinite ...	Hyperæsthesia, upper extremity.	Nil.
34	B. 2 years	Muscles about shoulder and above elbow paralysed. Weakness of flexors and extensors of hand. No paralysis of small muscles of hand.	Sudden onset. Following broncho pneumonia.	Hyperæsthesia of right upper extremity.	Pyrexia. 103°. Diarrhœia.
35	G. 3 years	Right arm and leg completely paralysed.	Onset was gradual. The right leg was first paralysed; two days later the right arm became completely paralysed.	Hyperæsthesia at first in the right leg and arm. Later for ten days numbness and tingling of right upper extremity. "Pricking" sensation.	Pyrexia. 102°.
36	G. 2 years	Paralysis complete of right arm. Partial paralysis of right lower extremity. Quadriceps, hamstrings, adductors.	She was teething when the attack started. No convulsions. Very irritable. Slight pyrexia.	Hyperæsthesia, followed by anæsthesia of forearm and hand, and inner side of arm (right side).	Subsequently developed meningitis, and died in Charity Ward, Guy's. ✠

(*e*) LEFT ARM. 6 CASES.

37	B. 2 years	Paralysis of muscles about the shoulder joint and above the elbow.	Convulsion. Sudden onset.	The child complained of pain in the left shoulder.	Diarrhœa.
38	B. 2 years	Ditto	Sudden onset. Feverish. Irritable.	Nil	Diarrhœa.
39	B. 2 years	Left upper extremity completely paralysed	Sudden onset, said to have followed a fall	Nil	Nil.
40	G. 2 years	Right arm completely paralysed. Muscles about left shoulder and above elbow also paralysed. Extensors of left hand are weak. Paralysis of anterior and peroneal groups of left leg	Convulsions. Sudden onset	First of all, hyperæsthesia of both upper extremities. Impaired sensation, lasting ten days, noticed in both upper extremities, three days after the onset	Diarrhœa. Pyrexia. 103°.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
41	B. 1 year	Left arm and leg completely paralysed	Sudden onset. Teething. Convulsions.	Nil	Diarrhœa. Vomiting.
42	G. 2 years	Both arms paralysed	Sudden onset. Convulsions. Both arms found paralysed. Lower extremities spastic.	Hyperæsthesia of both arms on second and third days. On fourth day, sensation impaired, muscles painful when palpated	Pyrexia. 104°. Profuse watery evacuations. Spastic paraplegia

(*f*) ARM AND LEG. 15 CASES.

43	G. $1\frac{8}{12}$ years	Complete paralysis of right arm, and paralysis of thigh muscles and glutei on both sides	Sudden onset at the age of 20 months, accompanied by convulsions. Child first seen when seven years old, with paralysis right arm and right thigh. Some weakness of movement also about left hip. Spastic legs	Pain in the limbs ...	Spastic paraplegia developed later. Ankle-clonus on both sides. On left, brisk knee-jerk. Babinski's sign.
44	B. 2 years	Complete paralysis of right arm and leg	Convulsions. Vomiting. Sudden onset	Hyperæsthesia. Painful muscles	Nil.
45	B. 3 years	Complete paralysis of right arm and leg	The child had bronchopneumonia a fortnight previously. Sudden onset. Œdema of face	For ten days there was impairment of sensation in both lower extremities	Pyrexia. 102·4. Diarrhœa. Albuminuria. Casts. Hæmaturia.
46	B. 2 years	Complete paralysis of right arm and leg	Sudden onset. Said to have had a "rash." Profuse sweating	Hyperæsthesia, right arm and leg	Nil.
47	B. 2 years	Paralysis, left arm and leg, complete.	Sudden. Vomiting. Semicoma.	Hyperæsthesia of left leg which lasted five days.	Diarrhœa. Pyrexia. 103°.
48	G. 2 years	Complete paralysis of left lower extremity, and paralysis of muscles, upper arm and shoulder.	Convulsions. Erythematous rash.	Hyperæsthesia of paralysed limbs.	Pyrexia. 103·6°. Vomiting.
49	G. 7 years	All four limbs were paralysed at first. Improvement occurred in a week in left arm, then in left leg after three weeks more.	During the second week of the illness, albuminuria and hæmaturia appeared with slight œdema of face and limbs. This cleared up rapidly. Two limbs remained permanently paralysed.	Hyperæsthesia and pain on movement complained of in all four limbs for a week after the appearance of the paralysis. The child then complained of numbness in both hands and forearms, and all down the right lower extremity.	Frequency of micturition. Diarrhœa with difficulty of control. Nephritis.
50	B. 2 years	All four limbs paralysed.	Sudden onset. Child feverish.	Hyperæsthesia of both lower extremities.	Nil.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
51	B. 3 years	Both lower extremities and right arm paralysed.	This child had been in contact with a case of scarlatina a fortnight previously to onset of paralysis.	Hyperæsthesia of paralysed limbs. Impaired sensation in right lower extremity and right forearm.	Diarrhœa. Pyrexia. 103°.
52	G. 2 years	Both lower extremities and right arm (shoulder and upper arm) paralysed.	A case of broncho-pneumonia was under treatment in the same room in which the child slept. Onset sudden. Sweating. Convulsion.	Hyperæsthesia with pain on movement of paralysed limbs.	Diarrhœa.
53	B. 2 years	All four limbs paralysed.	Convulsion	General hyperæsthesia	Pyrexia. 103·6°.
54	G. 2 years	Both legs and right arm completely paralysed. Left arm paresis of muscles, forearm and hand.	Sudden onset. Convulsion. Vomiting. Erythematous rash.	Early hyperæsthesia. Impaired sensation in both lower extremities lasting about a fortnight. Recovery very slow. Signs of improvement noticed during two years.	Pyrexia. 104.2°. Diarrhœa. Vomiting.
55	G. 6 years	All four limbs paralysed, the left arm not suffering so severely	Followed a week after an attack of lobar pneumonia. Sudden onset. Sweating. Sickness.	Hyperæsthesia of all the limbs. Impaired sensation in left lower extremity lasting a week.	Nil.
56	B. 1 year	Paresis of all four limbs, followed by atrophy of right arm and left leg	Followed directly on broncho-pneumonia	Hyperæsthesia ...	Diarrhœa.
57	G. 12 years	Both arms and right leg showed marked paresis, followed by wasting and atrophy of muscles, right arm and right leg	Rigors. Feverish symptoms, with a sudden onset and slight delirium	Hyperæsthesia. After a week the child complained, first of "pins and needles," later, of numbness. This was present for nearly a fortnight	Diarrhœa. Frequency of micturition.

(*g*) TRUNK MUSCLES AND GLUTEI.

58	B. 5 years	All four limbs are said to have been paralysed	History indefinite. Onset sudden. Child feverish.	The child is said to have been in much pain, especially when moved	Diarrhœa. Pyrexia.
59	G. 2 years	Actual paralysis unknown. Certainly two lower extremities. Paresis of arms.	A very weakly baby from birth. A convulsion occurred, and there has been a general paralysis from which the child is now recovering after a year's interval.	Unknown	Diarrhœa. Vomiting.

(*h*) NO PERMANENT PARALYSIS.

No. of Case.	Sex. Age.	Initial paralysis.	History and onset.	Sensory disturbance.	Other complications.
60	B. 4 years.	Both lower extremities were paralysed. The right more so than the left.	History uncertain. The child was suddenly taken ill. Convulsion.	No sensory disturbance.	Nil. There has been complete return of power in lower extremities.

(*i*) DEATH.

61	G. 3 years	Child completely paralysed.	Sudden illness. Temperature 104°. Vomiting. Drowsiness.	Hyperæsthesia	Death. ✠ meningo-encephalitis.

NOTE.—B. = Boy. G. = Girl.

The above cases occurred at the out-patient department of the Evelina Hospital, to which children under the age of fourteen are admitted. Six of the above cases, Nos. 5, 10, 18, 39, 46 and 53 had previously been under the care of my colleague Dr. T. R. Whipham, and he has kindly allowed me to use his notes.

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3. System of Medicine. Allbutt. Loc. cit.
4. Gowers. Clin. Soc. Trans. Vol. xxiv.
5. Openshaw. Proceedings Royal Soc. Med., January, 1909.

Statistics of the Bacteriological Department.

[Circulated by instruction of the House Committee, January 14th, 1909.]

Bacteriological Laboratories,
January 13th, 1909.

DEAR SIR COOPER PERRY,

I should like to bring before the notice of the House Committee a few details with regard to the work of my department.

During the past year the entries in the Bacteriological Laboratory Records, relating to specimens from patients, etc., in the Wards and Out-patient Department of this Hospital, and other investigations, have totalled 5,172, as compared with 6,142 entries in 1907. This decrease in the entries coincides, however, with a large increase in the work carried out in the laboratory, since this year, for the first time, the bulk of the inoculation work in connection with the therapeutic application of vaccines, etc., has been removed from the Bacteriological Laboratory Records, and now appears on the out-patient letters and in-patient cards which form the records of the Vaccine Department. That this is no unimportant transfer can be gathered from the following details:—

It will be recollected that, during the year 1907, patients recommended by the various members of the Medical and Surgical Staff for treatment by tuberculin, or other bacterial vaccine, were seen in the Bacteriological Laboratory, and the necessary injections administered either in the laboratory itself or the vaccine room, adjoining the post-mortem room. On and after February 18th, 1908, these patients have been seen on Tuesday and Friday mornings, in the Out-patient Department. The total number of cases under treatment up to the end of December, 1908, was 200, and 1,052 separate doses of vaccine have been administered during the course of the year. About one-third of these patients are suffering from various tuberculous lesions, and the remedy employed is the new tuberculin (Koch's T.R.). This is purchased in a concentrated form, and then diluted, and put up in suitable doses in the laboratory. The remaining two-thirds have been treated by vaccines which have been specially prepared in the Bacteriological Department. In-patients have also been treated by means of vaccines to the number of 106 cases in the Sugical wards, 56 in the Medical and Clinical wards, and 12 students and nurses (total, 174), necessitating some 800 hypodermic injections.

During the year, from January 1st to December 31st, 1908, at least 164 special vaccines have been prepared for the treatment of patients, either in the wards or in the

Vaccine Out-patient Department. In addition to these, many "stock" vaccines, prepared from numerous strains of some particular species of bacteria, have been put up and carefully tested, in the hope that the work of the department might be lightened, but with disappointing results, since, with perhaps one or two exceptions, our experience emphasises the value of the use of "special" vaccines in preference to "stock" vaccines in the treatment of bacterial infections. A summary of the results obtained during the past year is in course of preparation by Mr. Leeming, until recently Assistant in the department.

One thousand and forty-four test doses of Calmette's tuberculin have also been prepared and supplied to the dispensary, for distribution to the Wards and Out-patients.

In addition, apparatus for the collection of pathological material for examination has been supplied to the Wards and Out-patient Department.

The supervision of the sterilisation of dressings, and of the water supply to the Operating Theatres, has been continued during the past year, and a large number of specimens have been examined in this connection. Ligature and suture materials are frequently tested after preparation by the Ward Sisters. Similarly, solutions of drugs for hypodermic medication are sometimes examined for the Dispensary.

Yours sincerely,
(Signed) JNO. EYRE.

Guy's Hospital Dental Society.

ON Friday, January 8th, a meeting of the Dental Society was held in the Medical School Buildings, with Mr. J. E. Spiller in the chair. After the reading of the minutes of the last meeting, a Dental Correspondent to the GAZETTE was elected in the place of Mr. F. N. Doubleday.

The chairman then invited "Casual Communications," and Mr. Shepherd and Mr. Ruck showed three specimens.

Mr. Shepherd showed a lower right wisdom tooth with three roots.

Mr. Ruck then showed (I.) an upper central with a delacerated root. (II). A model showing absorption of alveolus in a girl of 14, the absorption being due to poisoning from a wound caused by a pen.

The chairman then announced that instead of, as usual, a paper being read, they proposed to have a discussion. The proposition was:—"That in the opinion of this House, the training of the Dental Surgeon should be on the same lines as that of the Aural or Ophthalmic Specialists."

The motion was proposed by Mr. Hodgson, seconded by Mr. Charles, and opposed by Mr. Shepherd, seconded by Mr. Spain.

A very interesting discussion took place afterwards, in which Messrs. Dowsett, Visick, Pomeroy, Brangwin, Spain, Constant and Moxley joined.

The majority of those present were opposed to the proposition, apparently because of the money and time which would seem to be wasted in the wards.

The President then spoke briefly, and after Mr. Shepherd had spoken, and Mr. Hodgson replied, the proposition was put to the vote, and lost by a very large majority.

WE understand that Messrs. George Chalk & Co., Dental Manufacturers, of 73, Great Portland Street, have acquired the business of W. & J. Jamieson, formerly of Upper James Street, Golden Square, and are now in a position to supply the dental goods and specialities of this old established firm.

Appointments.

Civil.

CREW, F. D., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health, Borough of Higham Ferrers.

HINDE, E. B., M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer, Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

LACEY, HUGH K., M.R.C.S., L.R.C.P. Lond., has been elected Honorary Surgeon to the Torbay Hospital, Torquay.

MAYER, CLIFFORD A. L., M.D., B.S. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed Senior Resident Medical Officer at the French Hospital, Shaftesbury Avenue, W.C.

MEYRICK-JONES, H. M., M.D., B.S. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health to the Charlton Kings Urban District.

ROBERTSON, CARRICK H., M.B., B.S. Lond., F.R.C.S. Eng., has been elected Surgeon to the Waihi District Hospital, New Zealand.

THORNELY, CAPTAIN M. H., I.M.S., has been appointed Clinical Assistant, Chelsea Hospital for Women, S.W.

Naval and Military.

Fleet-Surgeon W. J. BEARBLOCK, R.N., is appointed to the *President*, additional, for three months study at West London Hospital.

Captain E. J. O'MEARA, I.M.S., is posted to Agra for special duty.

Territorial Force, Royal Army Medical Corps.—EDGAR REID late Surgeon-Captain, 3rd Glamorgan Volunteer Rifle Corps), to be Captain, dated 1st April, 1908.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane* :—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Postal Orders to be made payable to Mr. C. H. WELLS.

C.D.P.S., HUDDERSFIELD.—This growth is a sarcoma composed of spindle cells arranged in interlacing bundles. It is clearly infiltrating muscle and fascia, but at the same time there is a fair amount of stroma in the growth, and the vessels have fairly well defined walls, hence we do not consider it a highly malignant growth.

W.L.W.M., HUDDERSFIELD.—This piece of tongue contains a malignant growth. It is a squamous celled epithelioma, in which there is a very marked inflammatory reaction everywhere surrounding the epithelial ingrowths. It has not penetrated to any great depth.

H.L., MANCHESTER.—There is no true papilloma in this specimen. The material consists chiefly of fibrous and cellular tissues, with bundles of muscle and mucous glands. Much of it has stained badly as though due to partial necrosis. Small fragments of mucous membrane and horny epidermis are also to be seen, but there are no traces of malignant growth.

C.P.S., HUDDERSFIELD.—The centrifugalised deposit from this urine consists of a moderate quantity of pus, but no tubercle bacilli are to be found in films prepared from it. The infecting organism seems to be a Gram-positive coccus, occurring in abundance within the pus corpuscles. With a view to the identification of this coccus we have inoculated a few Agar tubes, and a further report will be sent after sufficient time for the incubation of the cultures.

Further report.—The coccus, which was the only organism found in the urine, has now been put through the various cultural and fermentation tests, with the result that it proves to be the micrococcus ureæ of the non-liquifying type.

J.S.C., CLITHEROE.—The red cells show no great variation in size, nor is poikilocytosis at all marked, but they are of small average diameter, and extremely deficient in hæmoglobin. Nucleated red cells have not been observed while counting 300 leucocytes. The white cells do not seem reduced in their absolute numbers, although the relative proportion of polymorphonuclears is diminished, it is therefore probable that there is a certain degree of absolute lymphocytosis. A single myelocyte was observed while making the count. The following percentages were found :—

Polymorphonuclear neutrophides	53·00 per cent.
Small lymphocytes	42·33 „
Large lymphocytes	3·00 „
Eosinophile leucocytes	1·00 „
Mast cells	0·33 „
Myelocytes	0·33 „

The blood does not suggest pernicious anæmia, but seems characteristic of chlorosis or secondary anæmia of the chlorotic type.

PATHOLOGIST.

Papers by Guy's Men.

Atkinson, T. Reuell, M.D. Durh. A case of Foreign Body in the Pleural Sac.—*British Medical Journal*, 30th January, 1909.

Boycott, A. E., M.D. Oxon., and J. S. Haldane, M.D. Edin. The Effects of Low Atmospheric Pressures on Respiration.—*Journal of Physiology*, 15th December, 1908.

Boycott, A. E., M.D. Oxon., and C. Gordon Douglas, M.B., B.Ch. Oxon. On the Carbon Monoxide Method of Determining the Total Oxygen Capacity and Volume of Blood in Animals, with some experiments on Anæmia and Transfusion.—*Journal of Pathology and Bacteriology*, January, 1909.

Hale White, W., M.D. Lond., F.R.C.P. Notes from a Clinical Lecture on Addison's Disease.—*Practitioner*, February, 1909.

Hertz, A. F., M.D. Oxon., F. Cook, and E. G. Schlesinger. The Sensibility of the Stomach and Intestines in Man.—*Journal of Physiology*, 15th December, 1908.

Hicks, H. T., F.R.C.S. Eng. Pyelitis of Pregnancy Treated with Coli Vaccine (with chart).—*British Medical Journal*, 23rd January, 1909.

Lane, W. Arbuthnot, M.S. Lond., F.R.C.S. Fact and Fiction, or the Prognosis in Cases of Fractures.—*Practitioner*, February, 1909.

Maylard, A. E., M.B., B.S. Lond. Diseases, not of the Stomach, which are liable to produce Misleading Gastric Symptoms.—*The Clinical Journal*, January 27th, 1909.

Palmer, A. S. Morton, M.B., B.C. Camb. Observations on the Deep and Surface Temperature of Man.—*Journal of Physiology*, December 15th, 1908.

Pembrey, M. S., M.D. Oxon., and F. Cook. Observations upon Second Wind.—*Ibid.*

Residents' Theatricals Souvenir.

SUBSCRIPTIONS have been received from the following:—

A. Alcock, W. Betts, W. H. Bowen, J. Bowes, A. E. Boycott, W. A. Brailey, C. T. Brookhouse, T. E. Ashdown Carr, R. Godwin Chase, J. Sephton Cooper, A. Neville Cox, Miss D. Craigie-Halkett, F. A. Dick, G. W. Dryland, C. Edwards, Col. D. Elcum, J. H. Evans, Jno. Eyre, H. French, F. Holcombe Fuller, Miss L. V. Haughton, E. B. Hinde, P. C. C. Ingram, Mrs. Arbuthnot Lane, F. G. Lloyd, H. C. Mann, A. V. Maybury, E. P. Minett, W. M. Mollison, F. M. Morrison, G. M. Mow-Fung, W. P. Henley Munden, Miss Newton, Miss Orpe, H. M. Page, B. H. Palmer, A. Morton Palmer, Sir Cooper Perry, G. Newton Pitt, Wm. Rendall, R. P. Rowlands, L. Savatard, Lauriston E. Shaw, F. Shufflebotham, R. Stout, C. J. Symonds, W. H. Maxwell Telling, W. Hale White, Sir Samuel Wilks, R. M. Wingent.

Change of Address.

A. R. Beaumont, M.R.C.S., L.R.C.P. Lond., from St. Mary's Hospital, W., to 3, South Park Hill Road, Croydon.

A. H. Clogg, L.D.S. Eng., from 15, Central Hill to 18, Central Hill, Upper Norwood, S.E.

Sydney H. Jones, L.D.S.Eng., 1, Sloane Square, S.W.

Oswald Marriott, M.D. Lond., has returned to Hong Kong.

W. M. Sheen, L.R.C.P., L.R.C.S. Edin., from 4, Belle Vue Road, Ramsgate, to Clydesdale, Grove Avenue, Moseley, Birmingham.

Sidney Worthington, M.D. Lond., F.R.C.S., from Hurst House, Chesterfield, to 23, Jury Street, Warwick.

P. R. Bolus, M.B. Lond., from Fox Bay, Falkland Islands, to 5, St. Aubyn Street, Devonport.

E. B. Hinde, M.B., B.C. Camb., from Thorpe Road, Norwich, to Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Reviews, etc.

The price of books submitted for review should in every case be stated.

Applied Physiology. By Robert Hutchison, M.D., F.R.C.P. (Edward Arnold, 1908).

This excellent little book makes a valiant attempt to bridge that wide gap between physiologist and physician, which up to now, the pathological text-books alone have made any serious attempt at closing.

The author, in his clear and interesting manner, puts before us only those established physiological facts, whose application to clinical medicine appears most obvious, and refrains, intentionally, from entering into any discussions, which are, as yet, of purely academic interest.

The book is clearly a step in the right direction, but it must be borne in mind, that in these modern days of rational and deductive medicine, all that the physiologist can teach of the normal re-actions of the body, is of interest and importance to the physician, although its direct application either to the diagnosis or to the treatment of disease may be as yet obscure.

Such faults as the book has are almost entirely those of omission, and a volume twice the size of the present one would, we are sure, be heartily welcomed.

In particular, we are inclined to disagree with the author's remark in his preface, that "the time for writing the applied physiology of the nervous system has not yet come," and are of opinion that no branch of physiology lends itself more admirably for direct application to medical teaching than this branch does.

Further, the subject of Internal Secretions receives rather scanty treatment; the pituitary gland is left unnoticed, and no mention is made of recent work on the internal secretion of the genital glands, and the suprarenal capsule

The chapters on Respiration, the Circulation, and Digestion are particularly good, the author's discrimination between the sensations of hunger and appetite being extremely ingenious.

A part of the book which is not in accurate accordance with modern teaching, is the section on the secretion of gastric juice. The author states that the second method of gastric excitation is brought about by the action of certain chemical constituents of the food upon the nerves of the stomach, although Edkins has conclusively shown it to be due to the liberation of a hormone gastric from the mucous membrane of the stomach; and again, he is surely incorrect in stating that the flow of gastric juice begins before food has entered the stomach, continues for an hour or so, and then gradually declines.

However, the author is to be congratulated on having given us a concise, up-to-date, and interesting presentation of the more obviously applicable facts of physiology, and we hope shortly to be able to welcome a second editor, on a rather larger and more detailed scale.

Messrs. Bale, Sons and Danielsson, Ltd., will shortly issue a History of the Reading Pathological Society, written by the President, Dr. Jamieson B. Hurry. This Society, as is well known, ranks as one of the oldest Medical Societies in the country, and has accomplished an amount of work such as few Societies can rival. Its zeal for the advancement of the Science and Art of Medicine is shown by the numerous original communications which have been published during the past seventy years, and to which full references will be given. The volume will be illustrated by a series of Portraits, and contain descriptions of the Medical Library and Pathological Museum which form so essential a part of every progressive Medical Society.

This work should prove of interest to the Secretaries of the various local Medical Societies throughout the United Kingdom, as with one exception—that of the Royal Medical and Chirurgical Society—such a record is believed to be unique.

The Prescriber. Vol. II. January-December, 1908. Cloth 7/6; Half-leather, gilt top 10/-.

This monthly journal deals with Therapeutics, Pharmacology and the Newer Remedies. There hardly appears to be an opening in medicine for a new journal, but this hardy youngster is certainly growing into favour. The present volume deals with some important matters which have been to the fore during the past year, such as adienaline, the anti-opium plant, (*combretum sundaicum*), the organic arsenical compounds, the fermented milk treatment, etc.

The notes on new remedies and the prescribing notes will be useful to the ordinary practitioner, while the abstracts from English and foreign journals are an absolute necessity to anyone attempting to keep abreast with the latest research records.

We have received from Messrs. Evans, Gadd & Co., of Fore Street, Exeter, a catalogue of their pharmaceutical preparations and other medical specialities. This booklet, which is far more than an ordinary trade catalogue, containing as it does valuable prescribing notes extracted from the *British Pharmaceutical Codex*, will be sent out to any medical man on application.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; London Hospital Gazette; South African Medical Record; St. George's Hospital Gazette; St. Thomas' Hospital Gazette; Manchester Medical Students' Gazette; St. Mary's Hospital Gazette; St. Bartholomew's Hospital Journal; British Homœopathic Review; Prescriber.

Sport.

Rugby Football.

GUY'S v. OLD MERCHANT TAYLORS.

It was a little unfortunate, with Cup Ties looming into view, that the Hospital could not put into the field their full "Cup" team, but various reasons kept Archer, Lee, and Jones away. The visitors also had to do without the assistance of Parker, their fast wing player, who was playing for Oxford. Quite early in the game, Sprague retired with an injured arm, which afterwards proved to be a fracture. Guy's thus had to play through the game with only seven men in the pack, but these seven did remarkably well, and quite held their own against the opposing eight.

The Taylors' three-quarters had a very thorough understanding, and early gave promise that fast open passing would be the feature of their attack, and clever handling finally left the ball with Bull, who failed to gather until he had obviously pushed the ball on quite a yard; however, no whistle stopped him, and he touched for a try behind the cross bar. Raphael converted a try that should never have been allowed, as the infringement was patent, apparently, to everyone except the referee. The home forwards worked the ball down, but the attacking line never got going. Cane was so uncertain at the scrum base that no definite aggressive movement could be set up. At length, Wyatt getting offside, a free kick was awarded, and Stokes kicked a good goal. Each side attacked in turn till the interval, but no more points were added, and ends were changed with the visitors leading by 2 points.

On resuming, Wyatt, working the scrum for the Old Merchant Taylors, found it impossible to keep on-side, and several free kicks gained ground for Guy's. A fine breakaway on the part of Stranach from a line-out looked ominous, but the referee suddenly thought the throw was no straight, and Stranach's excellent effort was wasted. At length a duel in long kicking ended in favour of Duke, and from the subsequent play Medlock managed to gain a try, far out on the left. Stokes' kick was not successful, so that Guy's could only achieve a 1 point lead. This they looked like losing momentarily, as some passing by the visiting "threes" let up Bull on the left; some weak tackling by Stokes added to the Hospital's difficulties, and only a strong dribble by Hind and Roberts warded off, and eventually ended, a very trying five minutes.

Stringer now re-arranged his backs, going to the centre himself, instead of Saner, who went to the scrum base, Cane coming out to the left wing. The change worked well. Stringer's good tackling stopped the combined attacks, and he eventually got his side out of trouble with a good touch-finder. Just after this Medlock charged down a kick and raced by himself for the line,

within a foot of which he had the ill luck to be tackled. Soon, however, Wyatt got penalised again, but Medlock missed an easy goal, and then Stringer put the finishing touches to a good game by gaining a very clever try, in brilliant style, but too near the corner flag for Stokes to convert. Final score: Guy's, 1 penalty goal, 2 tries; Old Merchant Taylors, 1 goal. Team:—

GUY'S.—H. L. Duke (back); L. B. Stringer, G. E. W. Lacey, J. G. Saner, L. Stokes (three-quarters); A. H. Medlock, L. C. Cane (halves); H. R. Mullins, G. R. Hind, W. E. Williams, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, C. G. Sprague (forwards).

Referee: Mr, W. H. Clifford.

REMARKS.—All the forwards played well, though naturally handicapped by Sprague's absence. Cane had an off day, and Saner was out of place at three-quarter. The "threes" had very few chances of showing proper form. Duke was too erratic, some of his kicks, especially early in the game, finding anywhere but touch; consequently, the pack had too much running about, though their play never deteriorated.

PLYMOUTH v. GUY'S HOSPITAL.

Played at Plymouth, on January 30th, and resulting in a win for the homeside by 1 goal, 1 goal from a mark, 1 try (11 points), to nil—a margin which one must state at once does not exactly reflect the run of the game. Plymouth decidedly deserved to win, but not by 11 points; fortune favoured them, and, consequently, served the Hospital badly. At least two tries, with ordinary luck, should have been registered, one by Lee and one by Stringer. The latter swerved by Hoskins beautifully, but when almost clear Hoskins just touched his opponent's toe, and the pace at which Stringer was going did the rest, he came down a cropper. Early in the game Plymouth were awarded a free kick, and Butcher had a shot, but no goal resulted. Plymouth did most of the pressing for some time, Connett being pushed into touch right on the line. A scrum followed, and Thorn-Waite, receiving, feinted to pass and swerved over with a try, which Butcher did not improve. Once a fine passing movement by Lee, Jones, and Stringer looked hopeful for the Hospital, but Thorn-Waite brought Stringer down. Monaghan then raced away, but could not pass Hoskings. Willcocks secured and ran up the field, but Lee brought off a splendid tackle; however, just after, Willcocks marked, and Butcher kicked a good goal.

On resuming, after half-time, the home three-quarters got to work at once, but Jones cleared temporarily. Some hot work ensued on the Hospital line, and Lacey, who throughout played well, was hard put to it to clear. Eventually Lacey punted up the field, Hoskings being grassed before he got in his kick. From this, Richards, Conybeare, and Connett put in some smart handling, the last named grounding behind the posts, for Butcher to kick an easy goal. Stokes had hard luck with a penalty, and then Stringer got away beautifully, only to be brought down, as mentioned above. Just before the end, Connett and Thorn-Waite came away again, and a score seemed certain, when Lee ended the movement, stopping Thorn-Waite very cleverly. No further scoring took place, the final reading being—Plymouth, 11 points; Guy's, nil. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J, P. Jones, L. Stokes (three-quarters); A. H. Medlock, P. J. Monaghan (halves); H. R. Mullins, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, E. L. Elliott, F. G. Lowe.

REMARKS.—The forwards all played very well, but had difficulty in getting the ball in the scrum; neither half shone at all both having an off day. With regard to the "threes," Stokes played an average game, but Lee and Jones seemed a little out of condition. Stringer's tackling was splendid, and he had the worst of luck in not scoring at least twice. His ability to swerve improves with each game. Lacey played one of his best games, fearless and certain.

UNITED HOSPITALS (LONDON) v. UNITED HOSPITALS (DUBLIN).

The first of what promises to become a very interesting annual fixture, to be played alternately in London and Dublin, took place last Wednesday afternoon at Richmond, in a gale of wind which blew diagonally across the ground. The sides lined up some bit after the advertised time, owing to the photographer's attentions, and it was seen that Monteith (who acted as touch judge), had given way to Weddell of Bart.'s, while J. P. Jones' place was filled by Adams of London.

The visitors had to face the wind and much of their good work was easily counteracted by high touch-finding kicks, it was easily evident that Lindsay and Heath were going to feed their three-quarters as assiduously as possible, consequently the game was at once full of interest. Leeler and Deane, the Irish centres, tackled in deadly fashion, and their spoiling was such, that not until about half-an-hour had elapsed did either wing man get a really good show, at length, nice handling by the homeside got the ball out to Palmer, who running strongly rounded the opposition and scored wide out. Palmer took the kick, but no good resulted, and no further scoring was forthcoming before half time.

Against the wind the London side did better still, the Irish forwards, except Solomans and Sugars, slacked a bit and London got the ball repeatedly; at length Lloyd and Adams got going, the last named giving to Stringer, who running splendidly ran clean round and placed beneath the bar. Palmer goaled. Next, Lloyd who played consistently well throughout, got away very cleverly and confronting Hervey, sent in McEwan with an unconverted try. Almost immediately after came the "gem" of the match. Stringer securing near midfield, shook off his *vis-a-vis*, out-paced him, and swerving, at top speed, inwards, passed Hervey brilliantly and planted a lovely try between the posts. Palmer missed the place.

London were now going for all they were worth; Lindsay and Heale, who both did much gruelling work well and cleverly, cut out an opening, the former got away. passing in, two more forwards handled, and then Archer, receiving, crossed the line with the fifth and last try. Adams did not convert and the match ended 1 goal 4 tries in favour of the home side, The game was very keenly contested throughout, but played in a thoroughly sporting spirit, and hearty cheers were given at the end of the play for victors and vanquished. Teams:

UNITED HOSPITALS (LONDON).—H. Lee (Guy's) (back); A. C. Palmer (London), T. P. Lloyd (London), A. A. Adams (London), L. B. Stringer (Guy's) (three-quarters); A. B. Lindsay (London), A. S. Heale (London) (halves); A. Archer (Captain) (Guy's), J. McHaffey (London), G. R. Hind (Guy's), A. E. Evans (Bart.'s), W. D. Kennedy (London), A. H. Crook (Guy's), E. McEwan (London), J. W. Weddell (Bart.'s) (forwards).

UNITED HOSPITALS (DUBLIN).—T. N. Hervey (Adelaide) (back); C. Kelsall (Adelaide), R. W. Leeler (Mercers), E. C. Deart (Adelaide), R. Wright (Adelaide) (three-quarters); J. Beckett (Dublin), F. N. Smartt (Adelaide) (halves); B. Solomons (Sir Patrick Dunn's), H. S. Sugars (Sir Patrick Dunn's), E. Garstin (Adelaide), T. Gardiner (Adelaide), G. Garry (Richmond), A. S. Malone (Dublin), J. O'Boyle (St. Vincent), B. Quinlaw (Dublin) (forwards).

Guy's Hospital Out-patient Tea Fund, Christmas, 1908.

At a meeting of the Committee, held on February 2nd, 1909, the following statement of Receipts and Expenses was presented by the Treasurer:—

RECEIPTS.	£	s.	d.
By Balance brought forward from last year...	7	11	5
„ Contributions...	112	8	3
	£119	19	8

EXPENSES.	£	s.	d.
To Caterer, Refreshments, etc.	29	17	4
„ Cost of Clothing	12	1	0
„ Toys	13	13	4
„ Cinematograph	6	6	0
„ Decoration	5	3	11
„ Fees to Police, etc.	2	17	6
„ Postage	1	2	0
„ Printing	2	1	3
	£73	2	4
Balance in hand	46	17	4
	£119	19	8

Of the balance shown above, it was decided to carry £16 17s. 4d. forward to next year's account. The remaining £30 was voted to start an Out-patient Samaritan Fund, to be managed and controlled by the Out-patient Sister, the accounts to be audited yearly by Mr. C. H. Wells, and presented to the Out-patient Tea Committee.

A hearty vote of thanks was passed to the following for their gifts to the Tea, viz.—Mr. Lafone, Sir Everard Hambro, Sir Walter Palmer, and Messrs. Chas. Southwell & Co.

Pass List.

FINAL CONJOINT EXAMINATION, January, 1909.—Medicine, Surgery and Midwifery: *A. A. Greenwood. Medicine and Surgery only: *F. J. Wheeler. Medicine and Midwifery only: C. F. Searle. Surgery and Midwifery only: *M. M. Adams. Medicine only: T. F. Brown, F. Morres, F. J. Cutler, E. A. Collins, *J. R. Perdrau, *P. A. S. Dyson, S. S. Brook, *T. Evans. Surgery only: J. L. Johnston, V. P. Hutchinson, *A. E. Lees, *D. Allan, *W. E. Wallis, M. M. Cowasjee, *H. R. Mullins. Midwifery only: J. Lee Atkinson, H. I. Shahin, J. W. Featherstone, E. L. Elliott, *R. A. Rankine, A. D. J. B. Williams, V. T. P. Webster, C. Weller, C. G. Sprague, D. C. Druitt, W. T. Clarke, J. W. Williams, A. C. Schulenberg, P. C. Field, A. E. P. Cheesman, *H. Lee.

* Denotes completion of Examination.

UNIVERSITY OF CAMBRIDGE, January, 1909.—Degree of M.C. conferred: R. Davies-Colley (Emmanuel).

Papers by Guy's Men.

Pembery, M. S., M.D. Oxon., and A. H. Todd. The Influence of Exercise upon the Pulse and Blood Pressure.—*Ibid.*

Pembrey, M.S., M.D. Oxon., and E. G. Schlesinger. Observations upon the Respiration of Man when Breathing Air or Oxygen.—*Ibid.*

Robertson, Carrick, H. Acute Pancreatitis followed by Pancreatic Abscess. Operation. Recovery.—*British Medical Journal*, 23rd January, 1909.

Rowlands, R. P., M.S. Lond., F.R.C.S., and G. W. Nicholson, M.D. Camb. A Case of Primary Squamous-celled Epithelioma of the Epididymis.—*The Lancet*, 30th January, 1909.

Tubby, A. H., M.S. Lond., F.R.C.S. Orthopædic Surgery.—*Practitioner*, February, 1909.

Death.

EASTES.—On January 23rd, suddenly, at Gloucester Terrace, Hyde Park, W., George Eastes, M.B., F.R.C.S. Aged 67.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

February.

Sat. 20. 1st XV. v. Old Leysians (Away).
2nd XV. v. Harrow (Home).
1st XI. v. Weybridge (Away).
Debating Society, Ladies' Night, 8 p.m. Dr. Savage in the Chair.

Mon. 22. Clinical Lecture by Mr. Turner (Otology), 1.15 p.m.

Wed. 24. **Inter-Hospitals Rugby Cup Competition.** Semi-final: London v. Guy's, Richmond, 3 p.m.

Thur. 25. Messrs. Symonds' and Steward's Take-in (Messrs. Sanford and Dean).

Sat. 27. 1st XV. v. Rosslyn Park (Home).
2nd XV. v. Tunbridge Town (Away).
1st XI. v. Old Tollingtonians (Home).
2nd XI. v. Old Tollingtonians "A" (Away).
Debating Society: Special debate on "Socialism." Dr. Pembrey in the Chair, 8 p.m.

March.

Mon. 1. Clinical Lecture by Mr. Bellingham-Smith (Gynæcology), 1.15 p.m.
Physiological Society's Meeting, 4 p.m.

Wed. 3. Physical Society: Clinical Meeting, 8 p.m. (President; Mr. G. W. Goodhart).

Thur. 4. Messrs. Lane and Fagge's Take-in (Messrs. Leeming and Johnson).

Death of a Governor.

WE regret to announce the death of Sir FREDERICK WILLS, Bart., which occurred on Thursday last at Cannes. Sir Frederick was a Governor and generous benefactor of the Hospital, and his name is perpetuated in the Library which he gave to the Medical School. We hope in our next issue to give an account of the late baronet's career.

Passim.

THEIR Royal Highnesses the Prince and Princess of Wales gave further convincing proof during last week of their interest and enthusiasm for great charitable undertakings by a series of informal visits to various London hospitals. And Guy's, where the Prince is the President, was not forgotten, but was visited last Saturday afternoon. The Prince and Princess were shown round the hospital by the Matron and Superintendent, saw various wards, and visited surgical Out-patients. In Astley Cooper the Prince gave evidence of his wonderful memory by his recalling a patient who had been in one of the beds on the occasion of a previous visit.

ON Monday last the Prince and Princess were present at the Royal College of Surgeons to hear the Hunterian oration delivered by Mr. Henry Morris. On the same occasion, the diploma of Honorary Fellowship of the College was conferred on the Prince, who thus becomes one of our own profession. His Royal Highness's visits to the hospitals gain a special interest in view of this event, and they may be accepted as his qualifications for the diploma, since, as Mr. Henry Morris pointed out, "walking the hospitals" is an essential part of every surgeon's training.

WE are happy to say that the Residents' Dance was a conspicuous success, both socially and financially. An account of the dance will be found elsewhere, but we must take this

opportunity of congratulating Messrs. Morton Palmer and Henderson on the success which so amply rewarded their untiring efforts both before and during the function.

THE Bishop of Oxford delivered an address on Tuesday, February 9th, on behalf of the British Medical Benevolent Fund, and spoke of the hard financial position of medical practitioners, and the need for some fund such as this, which did a valuable work in relieving necessitous cases among medical men and their immediate kin. To carry on this work adequately the fund needs further support, and subscriptions should be sent to the Treasurer, Dr. Samuel West, 11, Chandos Street, Cavendish Square, W.

IT is a little unfortunate that Fate has decreed that our First Fifteen should meet the London Hospital in the semi-final for the Inter-Hospital Cup. But so it is; and this annual Homeric battle is to be decided at Richmond next Wednesday, February 24th. This is bound to be the most exciting of the cup-tie matches, and in any case, when the semi-final has been decided, it must become practically certain who is to hold the Cup for the ensuing year. Judging from the form shown this season, both by the London and by our own team, there is every prospect of a good strenuous game next Wednesday. If, in addition, we should be fortunate enough to regain the Cup, we shall certainly keep a more secure hold on it than we did on those unfortunate trophies which, as the phrase runs, "adorned the Club Smoke Room" last summer and so suddenly and unaccountably disappeared. The Rugby Cup, should it come to us, shall remain as safe as it has remained in the possession of the London Hospital team.

NEXT Saturday evening, February 27th, the Debating Society is to hold a special meeting for a debate on Socialism. Dr. Pembrey will take the chair at 8 p.m., and Mr. G. R. Blanco White, of the Fabian Society, will move, "That this House approves of the Socialist ideal." Mr. A. R. Thompson will oppose the motion, and Messrs. T. I. Bennett and J. Ryle will second the motion and opposition respectively. Both Socialism, and the party with that curious name of "Anti-Socialists," are so much in the air just now, that the debate is sure to be interesting. Moreover, the innovation of a speaker from outside opening the debate should have a good effect in stimulating the Society—always a little prone to become self-centred and parochial—to a broader outlook on affairs.

WE are indebted to Mr. R. G. Chase, of Chesterfield, for a cutting from the *Derbyshire Times*, which illustrates once again the value to the medical practitioner, especially the young practitioner, of belonging to the Medical Defence Union. Mr. Chase and another medical man were summoned, at the instigation of the Medical Officer of Health, for failure to notify the birth of a child within thirty-six hours after birth, in accordance with the recent Notification of Births Act. This was in spite of the fact that the father, who was also summoned on the same charge, pleaded guilty. Moreover, the doctor had notified the birth two days after, when he found that both the father and nurse had neglected to do so. Mr. Chase was defended by a local solicitor, instructed by the solicitor of the Medical Defence Union, and the charge against him was dismissed, one of the Bench remarking, "I think the doctor knows his job."

AN "Appendicitis Banquet" could scarcely have been held anywhere but in the United States, the home of "Scar-teas." This function was held at Philadelphia in honour of Dr. Deaver, and was attended by 160 surgeons who had all had their appendices removed by that surgeon, himself the only man present still possessing an appendix. "Not one of us but has felt his gentle knife," said one of the diners. "It is our only regret that among all of us, free men, liberated, chainless men, whose fetters of the appendix have been struck off us by our guest, he only remains a slave to the vermiform." Judging from some paragraphs in the halfpenny papers not very long ago, there are some surgeons in London who would be glad to hold a banquet at which every guest would have his little nutrient enema through his little appendicostomy opening, and so convince the

world that at last a "use" had been found for the appendix.

In our present issue will be found a short article containing some experiences in the use of fibrolysin in ear cases. If, as is claimed for it, this remarkable drug really has the power of causing the absorption of pathological fibrous tissue, its scope for therapeutic application is practically boundless. But, unfortunately, very few new drugs justify the extravagant praise lavished upon them on their first appearance, and certainly in the case of fibrolysin reports are very conflicting. There must be many old Guy's men who have made practical use of this drug in the fond hope of finding a therapeutic master-key, and we should be very glad to hear of their results and their verdict on the drug. Even short notes or single cases will be welcome.

The Report of the Royal Commission on the Poor Laws, which has been sitting for the last three years, is a volume immense in size, and of equally immense importance. Indeed, it is difficult at present to gauge the widespread effect which its recommendations, when carried out, as some of them must inevitably be, will have on all classes of society. Hospitals and the medical profession, at any rate, will be profoundly affected. In hospital practice the difficulties and anomalies of the workhouse system are constantly coming into light. Everyone seems to be agreed—and the Minority Report of the Commission is in agreement with the majority on this point—that the Boards of Guardians have now served their allotted span, and must give way to newer and better administrative machinery. We trust that when that machinery is devised, there will be improved co-ordination between the Poor Law relief and infirmaries and the general hospitals, just as the Royal Commission desires to see improved co-ordination between Poor Law relief and voluntary assistance. The whole subject is one of such vast significance, and is so many-sided, that we hope to return to the consideration of some aspects of it on a later occasion.

Many Guy's men, both past and present, must have been deeply shocked last week to hear of the sudden and tragic death of Mr. Godfrey Allison, M.B., of Petersfield, Hants. The young doctor was only twenty-six years of age, and was very popular in the town, where he held an assistantship. We have seen a letter which he wrote only a day before his death, and it seems to show him in full possession of mental and bodily activity, with his energy unimpaired and his plans for the future already laid.

Notices.

SIXTEENTH INTERNATIONAL MEDICAL CONGRESS.

We are requested to call the attention of speakers at the Sixteenth International Medical Congress that the manuscripts of their addresses should be despatched by the 28th February, 1909, *at latest date*, to the office of the Congress, VIII. Esterházy-utca 7, Budapest (Hungary).

We would also remind them that the subscription to this scientific gathering is twenty-five crowns in Austro-Hungarian currency, which sum may be sent by Post Office Money Order to Professor Dr. de Elischer, Treasurer of the Congress, VIII. Esterházy 7, Budapest.

ROYAL NAVAL MEDICAL SERVICE.

The next Examination of Candidates for Commissions in the Royal Naval Medical Service will be held at Examination Hall, Thames Embankment, on the 10th and following days of May, 1909.

The number of Commissions to be granted will be 15.

The forms to be filled up by Candidates will be supplied on application to the Medical Director-General, Admiralty, 18, Victoria Street, S.W.

Candidates must not be under 21 nor over 28 years of age on the day of the commencement of the Competitive Examination, and must be registered under the Medical Act in force, as qualified to practise Medicine and Surgery in Great Britain and Ireland.

The Examination will consist of two parts, as follows:—

	Marks obtainable.
I. Compulsory subjects—	
Medicine	1,200
Surgery	1,200
Pathology...	600
II. Voluntary subjects—	
French	300
German	300

Marks obtained in Voluntary subjects will not affect the entry or rejection of a Candidate, but they will be added to the Marks gained by successful Candidates in Compulsory subjects, and the positions on the list will then be decided by the total aggregate Marks.

Successful Candidates, immediately after passing the Examination in London, will receive Commissions as Surgeons in the Royal Navy.

J. PORTER,
Admiralty, February, 1909. Director-General.

A Case of Haemophilia, with Anomalous Family History.

BERNARD N., when seven months old, fell and opened a small artery on the deep aspect of the upper lip, and, although a ligature was applied, bleeding was not entirely arrested for fourteen days. Epistaxis had on several occasions been very severe, especially when he had whooping-cough. "Almost incredible bruising" followed the slightest knock. The bruises dispersed without forming abscesses, to the surprise of the local doctor. At various times, patient had had swelling of one elbow and both ankles, which are now completely restored to their normal condition. Suprarenal extract and calcium lactate have been given, but without any marked result.

When 3 years old he fell downstairs, and sustained a slight injury to the right knee. There was no cut, but next day the joint became much swollen, and remained so until admission to Guy's a year later. Sometimes, however, after a slight knock, there was increased swelling, which, after a few days' rest, subsided a little.

On admission to the hospital (October, 1907), the tibia was found to be slightly displaced backwards, and the leg rotated outwards. The swelling at the right knee-joint fluctuated, and was shining and tense, and the limb fixed in a flexed position. The X-rays showed the epiphyses to be intact, and demonstrated no tuberculous foci.

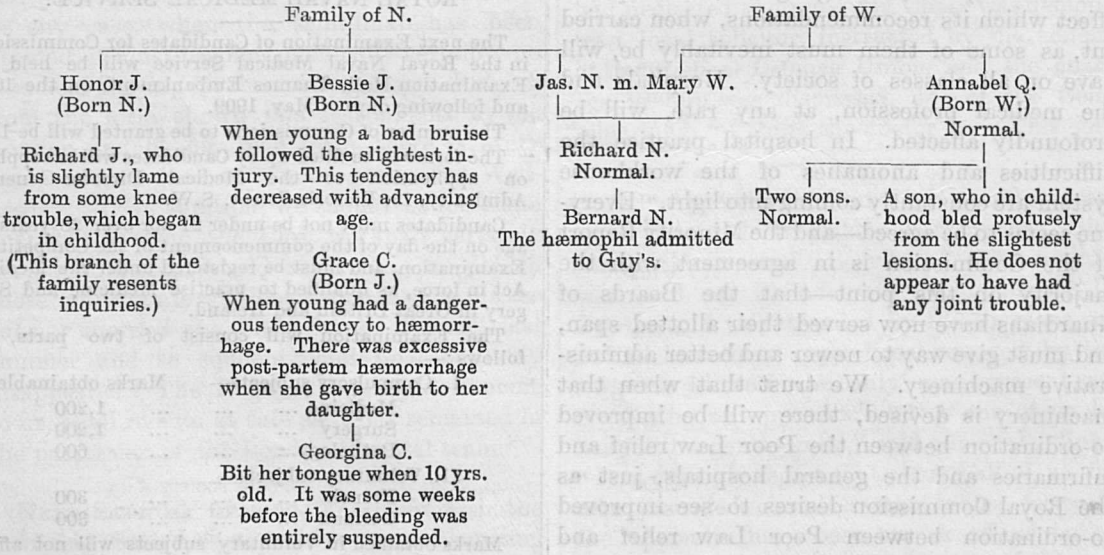
The limb was straightened in a McIntyre's splint, and formalin injected (the report does not make note of any excessive bleeding after the injection). This was followed by considerable pain. Tuberculin was injected without reaction. When the patient was discharged his injured knee was $1\frac{1}{4}$ inches greater in circumference than the sound one. Mr. Golding-Bird thought the swelling might be hæmophilic, though the displacement of the tibia was opposed to this diagnosis.

In December, 1908, patient was re-admitted, under Sir A. Fripp, for straightening of the limb, which had again become flexed, and only permitted of very limited movement. The symptoms were as on previous admission. There was muscular wasting above and below the joint.

The family history showed several near relations to be hæmophilic.

Osler says, speaking of hæmophilia: "In a majority of cases the disposition is hereditary. . . . Atavism through the female alone is almost the rule, and the daughters of a bleeder, though healthy and free from any tendency, are almost certain to transmit the disposition to the male offspring."

In the table given below there are two female "bleeders." Reference to standard text-books shows that the condition is uncommon in females. Again, the boy Bernard inherits his defect from his father's side. Thus the genealogy in this case differs considerably from the classical descriptions.



I have to thank Sir Alfred Fripp for permission to publish an account of the case. J. H. C.

Guy's Hospital Dental Society.

Annual Dinner.

This function—the fourteenth of its kind—was held on Saturday, February 13th, at the Empire Rooms, Trocadero Restaurant, and, like the whole of the Society's present season, was a great success. The President, Mr. John E. Spiller, occupied the chair, and was supported by Dr. Hale White, and Messrs. Eason, Symonds, and Rowlands, representing the Medical and Surgical Staff; Mr. Sidney Spokes, Dean of the National Dental Hospital; Mr. W. H. Dolamore, Dean of the Royal Dental Hospital; Mr. C. Robbins, President of the Metropolitan Branch of the British Dental Association; Messrs. W. A. Maggs, R. Wynne Rouw, and M. F. Hopson, of the Dental Staff; Messrs. Dowsett, Mollison, Lewin Payne, and F. J. Pearce, Vice-Presidents of the Society; the Chaplain, the Editor of the *Dental Record*, and the Secretary of the British Dental Association.

Nearly 150 members and visitors were present—a number exceeded on one occasion only, we understand, in the history of the Society. The chairman announced that several letters had been received from members of the staff, regretting their inability to attend the dinner.

After the loyal toasts had been duly honoured, Mr. Hopson rose, amid much applause, to propose, "Guy's Hospital and Schools." Mr. Hopson described the Dental School as the progeny of the Governors on the father's side, and the Medical School on the mother's. The happy union had been achieved, in the face of some little opposition on the part of the bride's family, in 1888, when the lady herself proposed (it being Leap Year), and, in spite of certain periods of financial difficulty in the father's affairs, the young hopeful which it produced had passed through all the dangers of infancy to maturity, and was still thriving.

Abandoning metaphor, Mr. Hopson dwelt on the manifold advantages to the hospital in possessing a large dental department. On the one hand, for instance, a colleague of Mr. Symonds might have a case of fractured jaw, which showed no signs of joining, sent over to the dental staff, and, on the other hand, the septic dental cases could be sent to Pat. and Sam.; many of the orthodontia cases for preliminary treatment were sent to the throat department, and so on. One department the Dental School never patronised, and that was the P.-M. room. The medical, surgical, and dental departments were a trio existing for one another's benefit. At the close of a very excellent speech, and coupling with the toast the names of Mr. Symonds and Mr. Eason, Mr. Hopson said that so long as the sons of Guy's remained true to the traditions of the hospital there need be no doubts or fears as to the future.

Mr. Symonds, replying, recalled that he had assisted in the inauguration of the Dental School, and in its reconstruction five years later, and said that it had amply justified its existence. A time was coming, he thought, when the dental profession should occupy its true *status* in the eyes of the public. Referring to the contributions of dentistry to science, Mr. Symonds mentioned the valuable work in bacteriology of Mr. Kenneth Goadby, and the work of Mr. Lewin Payne in the Guy's Museum, and expressed the hope that the museum of the Odontological Society should in due time take its place beside John Hunter's great collection. The general medical student, he thought, would greatly benefit by a few lectures on the teeth from one of the dental surgeons—an innovation which he hoped would in time be adopted. The dental department had been a great boon to the hospital, and above all had done good service to the poor of the district, for whom the hospital existed.

Mr. H. L. Eason also replied, and complained that the society mixed its hospitality with justice, making him attend the dinner and then speak. Referring to his marriage, Mr. Eason took the opportunity of thanking all those who had presented him with a souvenir of the occasion which he would always treasure. Turning to dental matters, the speaker said that the department at Guy's (if he might borrow Mr. Hopson's metaphor) was beginning to outgrow its clothes, but he could promise them opportunity for extension in the near future by the taking over of the chemical laboratory buildings, a scheme which had received the approval of the Governors. As Dean, he could say to them that the Dental School and students set a great example to the rest of the institution; none had greater keenness than the dental staff. He often made himself offensive to medical students by saying that they couldn't hold a candle to the dentals in the matter of industry or application. Of course, it was sometimes quite a different tune when he had to deal with a few selected dental students. The general conditions of dental practice sometimes made the limitations imposed on the holder of the L.D.S. a hardship in comparison with the freedom of the unqualified practitioner, but he confidently believed that things would be made less comfortable for the latter in the near future, and then the qualified man would receive his due recognition. In conclusion, Mr. Eason assured them that no one was keener than himself on the continued prosperity of the Dental School.

Dr. Hale White proposed "The Dental Society," and pointed out the school and the society were to all intents and purposes one. He related an adventure which occurred to him as a dresser in the Front, with a patient whose tooth he had endeavoured unsuccessfully to extract. It showed how desirable the formation of a dental department had been. The work waiting for the dentist was enormous in amount, and in view of that the profession was sure to flourish.

The society whose health he was proposing was a very valuable one. Its advantages were social and scientific, and the fact that a gentleman had come all the way from

Land's End in order to attend the dinner, showed what a genuine social value the society possessed.

THE CHAIRMAN replied to this toast, and said that he had a special interest in the society, as he was the first secretary who had afterwards become its president. The society had passed through a very successful season; an innovation, in the form of a dental debate, had been tried and greatly appreciated. Their meetings were a preparation for members who afterwards joined the outside dental societies. The speaker concluded with a grateful reference to Mr. Newland-Pedley, and his continued interest in the society.

Mr. E. B. DOWSETT proposed the health of "The Visitors," especially associating the name of Mr. Sidney Spokes with the toast. Mr. Dowsett said there were several students of rival institutions present, but with regard to them he did not at all desire to imitate Charles Lamb's attitude to a stranger: "Don't introduce me to that man, because I want to go on hating him." He desired, on the contrary, to give a hearty welcome to the visitors, some of whom they had had the pleasure of entertaining several times before.

Mr. SIDNEY SPOKES responded on behalf of the visitors. He objected to the word "rival" applied to the institution which he represented, and said he regarded all Dental Schools as one large society. He remembered the foundation of the Guy's School, and recognised the good work it had done and was doing; there were several men at his own school who had come from Guy's, and who were a credit to both institutions.

Mr. H. P. AUBREY proposed the health of "The Chairman," who, he said, had been secretary of the society, and now, as president, following a series of good presidents, was one of the keenest they had ever had. Mr. Spiller had not missed a single meeting during the session, which was a very good record. The Chairman's excellent qualities were so well known that it was needless to enumerate them, but he (Mr. Aubrey) would only say, "Long life and prosperity" to their President.

Mr. SPILLER, replying, confessed that he would rather be the president than the secretary of the society. The success of the dinner was mainly due to their worthy secretary, who had a hard task in arranging the tables so that everybody was more or less satisfied. He therefore gave them the toast of "The Secretary."

Mr. BULL responded, and alluded to the difficulties of arranging the guests, and the impossibility of seating six gentlemen next to one particular person. Mr. Bull gave a brief account of the society's session, which had been very successful, and said that the average attendance at the meetings was over forty.

Between the speeches, an entertaining musical programme was provided. Mr. K. H. Hole opened it with a piano solo, and afterwards kindly accompanied most of the vocalists. Messrs. Humm, Lakeman, Graham Poock, Ryley, Rutter, and Norman Warner sang, and Mr. Archer Hodgson recited. These gentlemen contributed much to the success of a most successful dinner.

Guy's Physiological Society.

A meeting of this society was held on Monday, February 8th; Mr. Hughes occupied the chair, and an interesting paper was read by Mr. T. I. Bennett, the title being, "The Importance of Eugenics."

In the first part of the paper the author discussed the relative importance of the two factors—quality and quantity—which determine the survival or disappearance of a race.

The second part treated of the distribution and inheritance of physical and psychical qualities, and many instances and groups of figures (reproduced mainly from Galton's works) were given, showing that in any variation the tendency is to regress toward the normal standard.

For convenience, Society was divided into three classes:—upper, middle, and lower, and it was assumed, with many instances and reasons, that the "middle" was the most stable and best "all-round" class for physical and mental qualities combined. For the future welfare of the race, it is therefore desirable that succeeding generations should be composed mainly of descendants from this class. But the birth-rate in this class is undoubtedly much lower than in the lower class. This has been proved by many different observers in different ways—one being by comparing the birth-rates in different districts, and estimating their relative wealth by the number of domestic servants employed, or their relative poverty by the number and prosperity of the pawnbrokers, or the percentage of child-labour in the districts.

The outlook for the future is, therefore, National Deterioration. How is this to be averted? By removing the cause, which lies not in the infertility of the better class, but in prevention. A poor man often has many children which are brought up by the parish. A man of the middle class, who pays high rates, cannot bring up a large family in his own position, and so resorts to prevention; and in this connection it seems unfair that a man with a large family should be called upon to pay the same rates as his childless neighbour. The author suggested, therefore, that the burden of taxation should be removed from men with large families by instituting a higher income-tax, a proportion of which should be remitted for every child born.

The consideration of another important branch of National Eugenics—namely, the eradication of heritable disease—time unfortunately did not permit.

The author made his points clearly, and his conclusions were aptly drawn, aud the able handling of statistics and diagrams rendered them far from wearying.

H. L. HOPKINS (Hon. Sec.).

BOOKS RECEIVED.—Sir William Bennett's Diseases and Injuries of the Knee-joint; Raffety's Radio Activity; Burney Yeo's Medical Treatment; Collie's Medical Evidence and the Laws Relating to Compensation for Injury.

The Pathology, Diagnosis, and Treatment of Perforative Peritonitis.

CLINICAL LECTURE BY MR. C. H. FAGGE.

GENTLEMEN,—In talking of perforative peritonitis, I shall limit myself to the consideration of peritonitis resulting from rupture of one of the hollow abdominal viscera. This acute condition most commonly results either from the perforation of a gastric or duodenal ulcer, from the escape of a gall-stone through the wall of the cystic or common bile duct, from perforation of a gangrenous appendix, from the rupture of an ectopic gestation, or from the escape of pus through the peritoneal orifice of a distended Fallopian tube.

These varieties of peritonitis differ not only in their origin and in the extent of peritoneum which is involved by them, but also in their intensity. And while this depends upon the virulence of the organism which is the prime factor in their causation, it also varies with the part of the peritoneal lining which is infected. It has been usual to regard the peritoneum as a large lymph sac lined by endothelium, and to believe that there are universally present between these cells the minute orifices of lymphatic channels by means of which any exudation within the peritoneal cavity can be absorbed over the whole of its surface; but recently this has been shown to be too wide a view of its structure and functions. For, if we found our opinions upon the work of Muscatello, who found in experiments with carmine that the diaphragmatic portion of the peritoneum in dogs was the only part where fluid and solid particles were absorbed into the lymphatics, we must believe that the rest of the peritoneum under normal circumstances is a closed sac, both microscopically and macroscopically, and can no longer hold the view that this cavity is at every point in direct communication with the lymphatic system. Under abnormal irritation it is the diaphragmatic portion of the peritoneum alone over which absorption takes place; and in cases of peritonitis the lymph spaces in the diaphragm may be seen to be crowded with leucocytes containing ingested bacteria.

These experimental data help to account for the clinical fact that in those cases of peritonitis where the diaphragmatic area is involved, the prognosis is the most grave; in fact, we may, for the purposes of prognosis, almost divide the peritoneum into three areas—the pelvic, in which the prognosis is good; the intestinal, in which it is less favourable; and the diaphragmatic, in which it is always grave.

But, as I suggested above, the prognosis depends not only upon the natural behaviour of the peritoneum itself, but also upon the varying virulence of the organisms which escape from the hollow viscera in these different localities. All will agree that inflammation ending in gangrene of the appendix is the commonest cause of perforative peritonitis. The bacteriology of this condition has been carefully and exhaustively worked out by Dudgeon and Sargent ("Bacteriology of Peritonitis, 1905.") From a large number of cases they draw the conclusion that there are two organisms mainly responsible for appendicular peritonitis. They found that as the peritoneal covering of the appendix becomes permeable, a mild form of staphylococcus albus may constantly be cultivated from the surrounding exudation by taking a swab from the peritoneum beyond the area of acute infection, whereas in the neighbourhood of the gangrenous appendix numerous examinations showed that the bacillus coli was the most frequent organism present. It is very difficult to estimate the bacteriological importance of the latter organism; and without going into the arguments which, on the one hand, make the bacillus coli of the highest importance, or, on the other hand, consider it to be of no greater importance than other intestinal organisms, I will only quote Dudgeon and Sargent's (*loc. supra cit.*) view, which ascribes to this organism a position between the two extremes, suggesting that, while the bacillus coli is not as fatal as others when introduced into the peritoneal cavity, yet, having acquired an abnormal virulence in the presence of an organism of comparatively mild type, such as the staphylococcus albus, "it plays by far the largest part in hurrying our peritonitis cases from the wards to the post-mortem room." It is important to bear in mind that the prognosis in peritonitis depends much more upon the virulence of the organism and the rapidity with which it is introduced into the lymphatic or blood stream, than upon the magnitude of the dose. As a clinical example of what I mean by this, it is well recognised that infection of the peritoneum is most unlikely to result during intestinal anastomosis under healthy conditions, but we are all aware of the very grave mortality resulting from peritonitis when enterectomy and intestinal anastomosis are undertaken during the

stage of acute obstruction, and this is due, not to the greater dose of poison which the patient absorbs, but to the fact that the virulence of the intestinal organisms is temporarily exaggerated owing to the intestinal stasis which the obstruction causes. Dudgeon and Sargent's belief that to the *staphylococcus albus* an important place must be allotted in the causation of peritonitis, is worth a moment's consideration, even though it has not been universally accepted, for we may get much help in planning out our treatment and in arriving at a prognosis of this condition if we consider the tendency of the organism which produces it. They point out that "it is an organism of very low virulence," that "though often present in cases of obstruction, it does not produce, when once the obstruction has been relieved, fatal peritonitis, and rarely suppuration of the wound": again, while it may be cultivated from what is apparently healthy peritoneum around an appendicular abscess, after the abscess has been opened it produces no spreading peritonitis. Perhaps the most interesting of their investigations, however, shows that this organism is invariably present in the bloody peritoneal exudation which results from rupture of an ectopic gestation, and may also be found in intra-peritoneal hæmorrhage the result of rupture of one of the solid viscera, such as the liver or spleen. In such cases of intra-peritoneal hæmorrhage the temporary pyrexia, which is so common a sequela of operations for this condition, or even subsequent peritonitis of a mild type, had previously been regarded as due to absorption of fibrin ferment or to some other non-bacterial agent.

In seven cases of perforation of the stomach or of the duodenum, a strepto-diplococcus was isolated from the edge of the ulcer by Dudgeon and Sargent, though according to others, of whom Ghon is the most recent, the pneumococcus is held to be the cause of peritonitis after gastric perforation.

It is now generally held that the gonococcus is the cause of, and may be cultivated from, the peritoneal exudation around a ruptured pyosalpynx, though, as recently as 1898, Kelly stated that, after repeated examinations, he had never been able to demonstrate the presence of this organism. Dudgeon and Sargent hold that the gonococcus is the chief factor, and conclude "that its pathogenicity is slight when introduced into the peritoneal cavity." The clinical course of these cases shows that, though the onset is sudden and acute, the subsequent course is that of mild peritonitis; intestinal paresis is uncommon, and the prognosis is favourable.

I do not propose to discuss the symptoms of peritonitis at greater length than is sufficient to give you some general guides to its diagnosis. And perhaps I can do this best, not by giving you a list of these symptoms, but by reading brief notes of a few cases, selected because they bring out symptoms which I regard as of greatest importance.

CASE 1.—Let us first consider the case of Wilfred B., æt. 13, who was admitted into John in January, 1907, under Dr. Pitt. He had suffered for three days from constipation and vomiting, in spite of careful feeding. His general aspect was good, and he did not seem to suffer much pain; the temperature was 98·2°, his pulse was 86. The abdomen was little distended, but generally tender on deep pressure, yet it moved well on inspiration: the right flank was dull and acutely tender. Though some of the physical signs typical of diffuse peritonitis were absent, and his pulse remained under 90, yet because of the repeated vomiting his abdomen was opened. The appendix was found to be gangrenous, and there was a diffuse watery exudation into the peritoneum, extending well into the left flank, which, on cultivation, was reported as sterile.

CASE 2.—Ernest L., æt. 28, was admitted into John, under the care of Dr. Hertz, in May, 1908. His pulse was 120, and temperature 97·4°: he looked ill, and the lower half of the abdomen was rigid and did not move on respiration. And this, as the symptoms had lasted six days, could not be put down to the onset of a localized peritoneal infection. The abdomen was opened, and peritonitis affecting pelvis and small intestine area was found, from perforation of a gangrenous appendix. The peritoneum was cleansed, and the abdominal wound closed without drainage. The after-treatment consisted of:—hot saline injections given per rectum; the Fowler position; water *ad lib.* by mouth. The pulse fell within twelve hours and never again reached 100. One and a half ounces of castor oil opened the bowels freely on the second day, and five days after the operation he was put on full diet.

CASE 3.—Charlotte R., æt. 30, was admitted into Miriam, under Sir Cooper Perry, in January, 1908, for collapse and abdominal pain; she is married, has had no children, and has never miscarried. In March, 1907, Dr. Horrocks removed her right tube and part of the ovary for a right ectopic gestation. In December, 1907, she again had abdominal pain, and was re-admitted into Queen. The uterus was found to be enlarged, and an indefinite swelling in the left

fornix was thought to be due to adhesions. On January 17th, 1908, the pain recurred in the left iliac fossa, and she remained in bed for two weeks, but on the 30th the pain became so acute that she lost consciousness, after which she vomited several times; towards evening her condition improved, but at 10 a.m. the next morning she had a second and even more severe attack, and became blanched and short of breath. She arrived at Guy's at 6.30 p.m., and said that during the journey there had been a sanguineous vaginal discharge. She was very pale, restless, breathing rapidly, and felt cold. Pulse 148; temperature below 95°. She complained of pain in left iliac fossa; left rectus was rigid; there was dulness in both flanks, and a lump in left half of hypogastrium, but owing to rigidity this was difficult to define. Per vaginam the uterus was enlarged to 3 months, and on its left side was an indefinite mass. Sir Cooper Perry, Mr. G. B. Smith and I agreed with the H.-P.'s diagnosis of ruptured left ectopic gestation, and at 8.45 I removed the ruptured ectopic sac and a 3-months' fœtus lying free in the abdomen, with part of the left tube and the left ovary. Her pulse, almost imperceptible when the abdomen was opened, improved under ether. The largest clots were rapidly swabbed out with pads wrung out in very hot saline, and the abdomen was closed with a single layer of sutures after the insertion of a large pelvic tube. Saline 3½ pints per rectum and ¾ pint into each axilla, adrenalin (15 ♏.) hypodermically, were given immediately after the operation, and two more pints of saline per rectum were necessary during the night. After eighteen hours the Fowler position was adopted. A soap enema gave no result, but an ounce of castor oil given on the second day, followed by a second enema, opened her bowels well. Convalescence was retarded by an attack of left basal pneumonia, and by diarrhœa lasting from the eighth to the twenty-first day. Her pulse did not drop below 100 until four weeks after operation.

Case 4.—Selina R., æt. 25, was admitted into Miriam in February, 1908, under Sir Cooper Perry, for abdominal pain and vomiting, with a history of indigestion for years, the pain coming on usually one hour after meals. At 4 p.m. on February 4th, she was seized with abdominal pain, so acute as to cause her to vomit, but she continued to work till 7 p.m., when she went to bed; during the night she vomited several times. In the morning she saw her doctor, who sent her up to Guy's. On admission, she lies on her back, obviously in pain, her face is drawn and anxious; pulse 140, temperature 100·6°. She complains of great pain in the abdomen, which is most tender to the left of the umbilicus, and the skin over the left half of the abdomen is hyperæsthetic; the abdomen does not move, and is so rigid that palpation discloses nothing; there is dulness in both flanks. On the diagnosis of perforated gastric ulcer, to which Dr. French and I agreed, her abdomen was opened, exactly twenty-four hours after the acute onset of pain. A quart of yellow odourless opalescent fluid was mopped out of the peritoneum, but both surfaces of the stomach and appendix were normal, and nothing abnormal was found on carefully examining the small intestine. On again examining the posterior surface of the stomach through a rent made in the great omentum, two pin-point holes close together were found, quite near the lesser curvature; around these there is an area of induration, one inch in diameter, to which lymph is adherent. This area was invaginated by a purse-string suture of catgut and the abdomen closed without drainage. After-treatment consisted of the Fowler position, saline and nutrient enemata every four hours alternately, and ol. ricini, one ounce, given twenty-four hours after the operation, which opened her bowels freely. Microscopical examination of the peritoneal exudate showed the presence of a diplococcus and empty capsules, probably the pneumococcus, but as cultivations remained sterile after three days' incubation at 37°, the identity of the organism could not be established.

The first case shows the importance of continued vomiting in abdominal cases, in spite of careful regulation of the diet, and in spite of repeated relief to the intestines by the daily use of soap-and-water enemata. The second is related to show the value of localised abdominal rigidity and of failure of the lower portion of the abdomen to move on respiration when the pelvic peritoneum is infected, even in the absence of sickness. Yet, while too much importance cannot be given to the continuance of vomiting, or to the increase of abdominal rigidity and even to slight diminution of movement of the abdominal wall during respiration, personally I regard increase in the pulse-rate as the most important sign in the diagnosis of perforative peritonitis. When I say this, I do not mean in the diagnosis of these cases, as we see them rarely now in an advanced stage, or as they were presented to the surgeon twelve years ago, when I was a clinical. Then peritonitis was only regarded as ripe for surgical interference when the eyes were sunken, the tongue was dry, the patient restless, the abdomen distended, boardlike, and universally tympanitic. In such a stage, which, unfortu-

nately, some text-books still describe as typical of peritonitis, the diagnosis can scarcely be difficult, but, as many surgeons have pointed out, surgical treatment at the present time is no more useful in these patients who are almost moribund than it was ten or fifteen years ago. The great reduction in the mortality of peritonitis has been brought about by the recognition of the earliest phases of peritoneal infection and its prompt surgical treatment; and I shall be quite satisfied if you carry away to-day some data which may be of help to you in the early diagnosis of this condition.

Apart from the symptoms and abdominal physical signs of which I have already given examples, the presence of pain is often of great diagnostic value; and if this persists after twenty-four hours' absolute rest in bed, or if it extends beyond the neighbourhood of the affected viscus, *i.e.*, outside the right iliac fossa, in appendicitis, and is associated with hyperpyrexia, in my experience, it indicates that a spreading peritonitis is being set up. But more valuable than this is, to my thinking, the general aspect of the patient. And in attempting to indicate to you exactly what I mean by this, I cannot do better than quote the words used by Mr. Bond, in addressing the surgical section of the British Medical Association, in August, 1906, when dealing with the treatment of acute septic peritonitis. He said:—"In conclusion, I should like to say that of all the signs on which we are accustomed to rely as indications of the patient's state, and as criteria of the extent and severity of the disease—namely, the vomiting, the want of correspondence between pulse and temperature, the pain, the rigidity and the distension—I place most reliance upon the aspect of the patient, that subtle state of neuromuscular tone which depends on the presence or absence of toxic effects on the nervous system."

Sometimes, especially in children, vomiting, or in nervous women abdominal pain, may, in apparently exact contradiction to what I have previously said, be neglected as clinical manifestations of grave abdominal disease. Some of us have seen this done by our masters, and have wondered at the reason. And I think if we could analyse their thoughts we should find that the expression and comfortable appearance of the patient had correctly outweighed the importance of the symptoms above mentioned, which in themselves might perhaps have suggested peritonitis, and which subsequent events proved to be fallacious.

Even in my brief experience of surgery the treatment of perforative peritonitis has been absolutely revolutionised. It is very difficult to say how far the high mortality of ten or fifteen years ago must be attributed to excessive vigour of surgical treatment. And it would obviously be unjust to draw very exact conclusions, as the cases then operated upon would, as I have previously said, even under present methods, show a high mortality owing to the fact that many of them were already beyond surgical aid. But perhaps by briefly detailing the general lines of surgical treatment of those days we may gain some help in learning what we should avoid. I think the chief faults of that time were, firstly, complete evisceration and universal manipulation of the peritoneum; secondly, the careful removal of lymph, which, adherent to the peritoneal wall, is now known to be thrown out as a natural protection against bacterial invasion. In a recent paper in the Annals of Surgery, 1906, le Conte quotes Murphy's record of twenty-nine cases of diffuse peritonitis with only one death.* And he argued that the fundamental reasons for the great lowering of his mortality had been adherence to certain principles, of which the following are the chief:—

(*a.*) The rapid elimination of the cause of the peritonitis.

(*b.*) Careful avoidance of all unnecessary manipulation of the peritoneum.

(*c.*) Peritoneal drainage, either pelvic, in women through the posterior vaginal fornix, or by a long tube passed from the supra-pubic incision into the recto-vesical pouch.

(*d.*) The Fowler position, by which, as you know, I mean the raising of the patient's body so that the spinal axis forms with the bed an angle of at least 45°.

(*e.*) The administration of large quantities of water, per rectum, which is said to reverse the peritoneal lymph-current and to increase the urine excretion.

(*f.*) The prevention of peristaltic movements by withholding all mouth-feeding, or, if necessary, by giving opium.

My much smaller experience leads me to agree absolutely with Murphy's lines of treatment, *a*, *b*, *d*, and *e*, but with regard to *c*, one must remember that alteration of opinion is more rapid in nothing than in the surgical treatment of acute abdominal affections, and, personally,

*In June, 1908, Murphy (Surg., Gynæcol. and Obstet., p. 565) brings his record up to fifty, with two deaths.

I have no faith in the value of peritoneal drainage for the conditions which we are now discussing. During the last few years it has been shown by others that, provided the cause of the peritonitis be removed, *e.g.*, a gangrenous appendix or pyosalpynx, or further infection of the peritoneum be prevented, as is secured by careful suture of a perforated gastric ulcer, and if, after this, any gastric or intestinal contents, or any definite collection of pus, be carefully wiped away with sterile gauze moistened in normal saline solution, taking great trouble to handle the intestine as little as possible, to avoid separation of adherent coils, and to leave untouched plaques of adherent lymph—if these things are conscientiously and *quickly* carried out, artificial drainage by a rubber tube or gauze is entirely unnecessary. It is remarkable in a case of peritonitis, reopened after three or four days, to see how the exudation, far beyond the region of the drainage tube, has been removed, and the shiny peritoneal surface has been restored, indicating the natural power of the peritoneum to drain itself and to absorb innocuous exudation. Conversely, we know how, after a few hours, a drainage tube is shut off by adhesions, and how, in a case which is going from bad to worse, pus may be localised and shut off from a drainage tube only an inch or two distant. By what I have just said, I mean to suggest, firstly, that drainage of the peritoneum is unnecessary, and, secondly, that it is impossible.

Again, with regard to *f*, I can scarcely believe that unless opium were given in large quantities it would retard peristalsis, and if it did do this it would do harm rather than good, for retention of intestinal toxins, with their subsequent absorption, is just what we especially wish to avoid, and one knows clinically that when, some ten years ago, opium was freely given in these cases, it often seemed to be the last straw which determined the patient's death. On the contrary, I am strongly inclined to lay the greatest stress on the importance of aiding the rapid elimination of intestinal poisons by free purgation immediately after the patient has recovered from the anæsthetic. In his recent paper (*loc. cit. supra*) Murphy says, for much the same reason as I have given above, that opium should never be given either before or after operation, and quotes the opinion of Dudgeon and Ross that it also does harm by inhibiting leucocytosis.

In reviewing my own opinions and the operative treatment which I regard as essential at the present time, I should like to draw your attention to several main principles.

(*a.*) Removal of the cause. This may mean only the removal of an appendix, or the excision of a Fallopian tube the seat of a ruptured ectopic gestation, or may consist of the much more difficult matter, the suture of a deeply situated duodenal or gastric ulcer.

(*b.*) The careful, gentle, rapid cleansing of the peritoneum immediately in the neighbourhood of the infective cause with gauze. It has frequently been shown that peritoneal exudation is likely to collect in three positions. These are the pelvis and the right and left lumbar pouches. And when the patient has, for a short time, been kept in the supine position, fluid will collect in the lumbar region even more readily than in the pelvis; drainage by gravity from the loin into the pelvis is prevented by the intervening elevation of the psoas lying over the convexity of the lumbar spine.

There seems to be no advantage in removing these remote collections of peritoneal exudation, which are in themselves largely protective, as they contain numbers of active leucocytes. Evisceration necessitating extensive handling of the intestines and the careful mopping away of all fluid or the flushing of the whole abdominal cavity cannot be too strongly condemned. Cleansing of the peritoneum must be absolutely limited to wiping away gross contaminations such as gastric contents or loculated pus, and experience shows that when dealing with intraperitoneal clots, as met with in operations for ruptured ectopic gestations or ruptures of the solid viscera, it is unnecessary to remove them more freely than to enable the operator to localise and deal with the affected organ.

(*c.*) Drainage. Personally, I have for some time limited drainage only to cases of abdominal abscess where the cause cannot be eradicated, or to cases of peritonitis where the further infection of the peritoneum cannot with certainty be avoided, such as a case of perforation of a gastric ulcer where the ulcer, owing to its position, cannot be sutured. The great disadvantages of abdominal drainage, to my mind, are the possibility of the formation of a fæcal fistula and the almost certainty of a hernia resulting at the point of exit of the drainage tube. Where drainage is unavoidable, I have found it best to use a very wide tube rolled up in gauze, with a gauze wick passed down its lumen. The central gauze may be removed after forty-eight hours and replaced, and the tube entirely removed after four or five days. In the after-treatment, I place the greatest reliance on three things: (1) The Fowler position, secured by the use of

several pillows, or a bed-rest. (2) The combating of shock by the early injection of normal saline solution into the rectum. This is best commenced immediately after the operation, when, through a catheter passed into the rectum to its full length, normal saline at 105° F. is slowly introduced into the rectum. The paramount factor in the success of this treatment lies in ensuring that the saline shall be warm enough, and that it shall not be too rapidly introduced. The height of the fluid in the vessel from which it is syphoned should not be more than twelve inches above the level of the patient's anus. If this cannot be retained, normal saline may be introduced into a vein, or into the subcutaneous tissues of the axilla, but either of these methods is less satisfactory than infusion by the rectum, as absorption is considerably slower by the former, and large quantities cannot be introduced by the latter method. Personally, I am in the habit of aiding the exhibition of fluids by rectal injection by unlimited draughts of cold water by the mouth, as I do not think that this in any way increases the vomiting, and it certainly is a great factor in securing the rest and comfort of the patient.

In the treatment of post-operative shock, strychnine has quite given place to adrenalin, either introduced subcutaneously, or added to the saline infusion in the proportion of one part of the $\frac{1}{1000}$ solution to fifty of normal saline. It is well to remember that the effect that this drug has of raising blood-pressure is of extremely short duration, so it must be given in small doses frequently.

(3) Lastly, I should pin the greatest faith on free purgation immediately after the operation. In fact, in the worst cases I believe that a fatal result can only be avoided by the injection of purgatives, such as mag. sulph. 1 oz. in saturated solution directly into the intestine during the course of the operation. My usual practice is to have an enema given as soon as the patient is round from the anæsthetic, and if this does not act, a full dose of castor oil (1 oz. or 1½ ozs.) is given within twelve hours of the operation. I think that castor oil is far more certain and more rapid than calomel, and is no more likely to produce vomiting. But, as an alternative, calomel 1 gr. and mag. sulph. 30 grs., or a drachm may be given every hour alternately until a satisfactory result is secured. Several cases treated with calomel and mag. sulph. have had more than 15 grs. of calomel before their bowels were opened, without ill-effects. I feel sure that no effort should be spared to get the bowels open, as when free action has been secured I always feel that the prognosis is considerably improved.

The cases dealt with by the above methods are too few to allow any deductions to be drawn from them; nine cases of peritonitis from appendicitis, six from perforation of gastric ulcer, and one from rupture of an ectopic gestation have all ended satisfactorily, but death occurred in a case of pneumococcal peritonitis (no primary focus in abdomen) and in a case of typhoid perforation. It has seemed to me that secondary abscesses are rather more common after this line of treatment, as one appendix case had severe subcutaneous suppuration, and a second required a second operation for pelvic abscess. In one of the gastric cases a subphrenic abscess formed, and the patient vomited up its contents; laparotomy later failed to locate it, and the patient recovered. My hope that primary suture of the abdominal wall would eliminate the frequent sequela of drainage, viz., ventral hernia, has not been completely verified, as two of the appendix cases have subsequently needed operation for this condition.

The Residents' Dance.

THE Guy's Hospital Residents' Annual Dance was held on Thursday, February 11th, in the Grafton Galleries, and was voted a great success from every point of view by everyone present. The floor was a great improvement on last year's, and in general appearance and comfort the apartments were pronouncedly superior to those we occupied in 1907.

In all, there were two hundred and five people present. Mrs. Cosmo Bonsor received the guests at the entrance to the larger ball-room, and stayed till the very end. The Matron of the Hospital (Miss Swift) also remained throughout the evening, and both these ladies congratulated the stewards upon the success of the Dance.

Amongst those present were Mr. and Mrs. Cosmo Bonsor, Dr. and Mrs. Hale White, Mr. and Mrs. Charters Symonds, Mr. and Mrs. Arbuthnot Lane, Mr. and Mrs. Fagge, Mr. and Mrs. Rowlands, Mr. and the Hon. Mrs. Eason, Mr. and Mrs. Ormond, Mr. and Mrs. Mollison, and Mr. and Mrs. Hopson.

The orchestra was under the direction of Mr. Burgess, and we may mention, as a tribute to their excellence, and to their patience also, that every dance after the third was encored. The refreshments were in the hands of Messrs. Benoist, and were praised on all sides.

We congratulate Messrs. A. S. Morton Palmer and Hal. J. Henderson on their efforts, productive of such success; and in searching for a criticism, we should have liked to have seen a few more men present; junior men especially were conspicuous by their absence. We were glad to observe that no less than eighteen present Hospital sist r were there.

Guy's Hospital.

STATISTICS OF THE DISPENSARY.

[Circulated by order of the House Committee.]

MR. FINNEMORE'S annual report on the work of the dispensary and pharmaceutical laboratory is as usual full of interesting facts and figures, and gives one some idea of the magnitude of the work done in this department. We say "some idea" only, because to the uninitiated it is difficult to visualise 680 gallons of lysol, for instance, or 97 cwt. of lint. Nevertheless, the figures in pounds, shillings and pence can be appreciated by everybody, and they bring vividly home to the reader the cost of treatment on the wholesale scale.

The report opens with some figures as to the number of patients dealt with.

The total number of out-patients who attended the dispensary for medicine during 1908 was 198,332, compared with 204,869 in 1907, 206,443 in 1906, and 199,974 in 1905. They are divided into patients who pay the nominal sum of threepence per week for medical supplies and those who, being too poor to pay, receive their medicines free.

The following are the number of dispensary attendances during 1907 and 1908 :—

1907.	Paying	163,546
	Free	41,323
	Total ...	204,869
1908.	Paying	151,705
	Free	46,627
	Total ...	198,332

Comparing these figures with those of last year there is a decrease of nearly 10,000 medical cases, balanced to some extent by an increase of 6,000 in casual cases.

As was mentioned in the report for 1907, there is a growing tendency for the proportion of free patients to paying patients to increase. In 1904 the proportion was 121 per 1,000; in 1905, 148 per 1,000; in 1906, 147 per 1,000; in 1907, 201 per 1,000; and in 1908, 235 per 1,000. This increase in the proportion of free to paying patients is a very definite and very significant fact which still apparently remains unexplained.

The work of the dispensary, just like the work of the front surgery and out-patient departments, is made more difficult by reason of the fact that the greater number of patients attend during a few hours only of the day. The report before us goes on to consider this question.

"Now that the re-arrangement of the out-patient department is being considered, it is necessary to state, from the point of this department, what is deficient in the present system.

The chief defect is that too great a proportion of the out-patients, although obliged to be in attendance by 2.30 p.m., arrive at the dispensary after 5 p.m., when the greater part of the work of the day should be completed. At present about one-third of the out-patients attend the dispensary after 5 p.m., as will be seen from these typical figures :—

1908.	Before 5 p.m.	After 5 p.m.	Total.
Monday, Nov. 2nd ...	590 ...	117 ...	707
Tuesday, Nov. 3rd ...	573 ...	183 ...	756
Wednesday, Nov. 4th	456 ...	155 ...	611

This arrangement would not be so objectionable if there were a constant stream of patients during the day, but in the afternoon, while new patients are being seen, there are not enough patients available to keep the dispensers at work; moreover, a great number of out-patients, after being seen by the medical officer, go home and return in the evening for medicine. This should only be permitted in exceptional cases."

The following shows the numbers attending every hour on a Wednesday :—

	Medical and Surgical Cases (Letters).	Casuals (Slips).	Total.
9—10 a.m.	— ...	21 ...	21
10—11 a.m.	— ...	17 ...	17
11—12 a.m.	43 ...	71 ...	114
12— 1 p.m.	9 ...	28 ...	37
1— 2 p.m.	37 ...	28 ...	65
2— 3 p.m.	81 ...	33 ...	114
3— 4 p.m.	63 ...	28 ...	91
4— 5 p.m.	44 ...	12 ...	56
After 5 p.m.	76 ...	80 ...	156
Total ...	353 ...	318 ...	671

The following table gives the amount of money received in the last two years :—

	1908. £ s. d.	1907. £ s. d.
Out-Patients...	1,904 7 2	2,040 4 6
Sale of Drugs	94 16 10	97 16 0
Net Profit on sale of Bottles to Out-Patients ...	76 18 5	94 13 11
Goods supplied to the Medical School... ...	65 1 6	69 8 5
Goods supplied to the Dental School	46 5 10	44 14 0
Goods supplied to the Institution	28 16 4	30 16 5
	£2,216 6 1	£2,377 13 3

In addition to the above an account has been kept of the goods supplied to the following :—

	1908. £ s. d.
Skiagraphic department	19 11 9
Medical Skiagraphic department	4 11 9
Electrical department	6 15 5
Works department	8 14 9
Laundry	1 1 6
	£40 15 2

There is thus a decrease of £136 from out-patients.

The total cost of drugs and dressings during 1907 and 1908 is given below from figures supplied by the Clerk to the Governors.

	1908. £ s. d.	1907. £ s. d.
Drugs	2,526 5 6	2,567 10 1
Dressings	2,402 14 8	2,592 2 4
	£4,929 0 2	£5,159 12 5

Coming to details, the report states the amount expended on two large classes of drugs—anæsthetics and antiseptics. The following are the figures for 1907 and 1908, set side by side for comparison, on—

ANÆSTHETICS.

	1908. Quantity used.	1907. Quantity used.	1908. Cost. £ s. d.	1907. Cost. £ s. d.
Absolute Alcohol	408 lbs.	272 lbs.	62 3 11	41 19 3
Chloroform ...	720 lbs.	881 lbs.	52 14 8	58 14 1
Cocaine and its Salts ...	16 oz.	26 oz.	4 16 0	11 19 6
Ether ...	...1008 lbs.	674 lbs.	89 8 7	65 18 5
Ethyl Chloride	276 tubes	138 tubes	18 12 6	10 10 10
Eucaine Lactate	2 oz.	3 oz.	0 16 6	1 7 0
Nitrous Oxide	8800 gals.	6000 gals.	16 10 9	10 10 0
			£245 2 11	£200 19 1

The increase on absolute alcohol does not mean that more has been used in the hospital, as this article is largely bought by the dispensary for the medical school departments.

It will be seen that there is a tendency to use ether as an anæsthetic instead of chloroform. These articles are of exactly the same brands as have been in use in the hospital for some years. The chloroform is a very pure article, but there is no doubt that although the ether, when introduced some years ago, was said to be the purest on the market, that condition does not obtain at the present time, and steps are being taken with the view of recommending that the source of this article be changed.

ANTISEPTICS.

	1908. Quantity used.	1907. Quantity used.	1908. Cost. £ s. d.	1907. Cost. £ s. d.
Acid, Boric ...	22 cwt.	26 cwt.	24 14 6	32 2 0
Acid, Carbolic	20 cwt.	30 cwt.	58 6 8	87 10 0
Chinosol ...	4 lbs.	8 lbs.	2 4 0	4 9 0
Cresol	246 gals.	120 gals.	16 18 0	8 4 0
Formaldehyde	412 lbs.	672 lbs.	6 16 10	11 10 6
Hydrogen Peroxide... ...	245 gals.	180 gals.	27 2 8	21 2 10
Iodoform ...	28 lbs.	28 lbs.	16 5 6	16 4 4
Lysol	680 gals.	575 gals.	146 15 8	108 12 8
MercuricChloride	56 lbs.	85 lbs.	6 3 8	8 5 10
Mercuric Iodide	8 lbs.	4 lbs.	3 0 0	1 10 0
			£308 7 6	£299 11 2

The following shows the amounts expended on a few important drugs:—

	1908. Quantity used.	1907. Quantity used.	1908. Cost. £ s. d.	1907. Cost. £ s. d.
AcetylSalicylic Acid	131 lbs.	77 lbs.	14 0 3	8 0 5
Balsam of Peru	152 lbs.	98 lbs.	55 8 0	24 19 2
Bismuth Salts	168 lbs.	224 lbs.	56 5 10	63 16 8
Camphor ...	250 lbs.	270 lbs.	33 13 0	59 14 7
Glycerin ...	32 cwt.	29 cwt.	102 4 0	76 10 0
Honey	38 cwt.	49 cwt.	51 18 5	56 6 0
Malt Extract ...	170 cwt.	170 cwt.	199 12 2	213 5 0
Potassium Iodide ...	252 lbs.	210 lbs.	98 17 6	83 7 3
Rectified Spirit	250 gals.	250 gals.	245 11 2	245 16 8
MethylatedSprt	1440 gals.	1280 gals.	100 17 4	98 8 8
Sugar	62 cwt.	54 cwt.	53 4 10	48 16 1
Serums—				
Antidiphtheritic			33 0 0	56 0 0
Antistreptococcus			48 0 0	21 0 0

Of these acetyl salicylic acid is of interest in demonstrating the importance, from the point of view of economy, of using chemical substances instead of the same substances under trade names.

This simple derivative of salicylic acid has been known about thirty years, but has not been used in medicine till recently, when it was sold under the trade name "Aspirin," by which name it is sometimes prescribed. The cost of 131 lbs. of "Aspirin" is about £130, so there is a clear gain of about £116 by using, in the past year only, acetyl salicylic acid instead of the article with the fancy name.

Practically all this large amount has been made into compressed tablets.

DRESSINGS.

The amounts used and cost of these have been as follows during 1908:—

	Quantity used.	Cost. £ s. d.
Bandages, Grey	998 gross ...	498 18 3
Bandages, White... ...	565 gross ...	375 19 9
Bandage Cloth	9,800 yards ...	58 10 1
Cellulose Wadding ...	168 lbs. ...	3 3 0
Felt...	9 lbs. ...	3 3 8
Gauze, Double Cyanide ...	24,150 yards ...	81 15 10
„ Grey	30,240 yards ...	74 9 7
„ Iodoform	13,096 yards ...	60 0 4
„ Ribbon	14 doz. ...	4 3 0
Holland, Brown	20 rolls ...	48 1 11
Lint	97 cwt. ...	525 14 0
„ Boric...	24 cwt. ...	103 6 2
Compressed Moss... ...	96 sheets ...	2 8 0
Mead's Strapping... ...	15 doz. ...	12 11 11
Tissue, Gamgee	280 lbs. ...	10 11 2
„ Gutta Percha ...	359 lbs. ...	62 18 9
Tow...	12 cwt. ...	11 16 0
Wool, Absorbent	101 cwt. ...	291 12 2
„ Grey	34 cwt. ...	66 0 9
„ Sal Alembroth ...	4 cwt. ...	15 8 11
		£2,310 13 3

The vigilant watch kept over the sources of supply is illustrated by the following passage:—

"For failing to comply with standard, the following drugs have been rejected:—

Soft White Paraffin.
Spurious Virginian Prune Bark.
Camphor."

PHARMACEUTICAL LABORATORY.

The work of this section has included the following:—

Collodions	... ...	10 gals.
Confections	... ...	1 cwt.
Dentifrice	... ...	3 cwt.
Lotions	... ...	5,000 gals.
Ointments	... ...	35 cwt.
Tablets	... ...	418 lbs.
Plasters	... ...	4,000 yds.
Liniments	... ...	230 gals.
Powders	... ...	4 cwt.
Mixtures	... ...	8,440 gals.
Syrups	... ...	712 gals.
Tinctures	... ...	220 gals.
Soda Water	...	... 28,100 syphons.

With regard to dentifrice, about 2 cwt. has been supplied to the dental department packed in 2-oz. boxes, and wrapped ready for giving out to patients.

Mr. Finnemore concludes his report as follows:—

"Speaking generally as to the work of the department, we have exactly the same staff numerically as seven years ago; the quantity of work has enormously increased since then, far more than can be shown in a report such as this. The department habitually works at full pressure, and the time has come when any increase in the work will necessitate an increased staff."

Appointments.

Civil.

HINDE, E. B., M.B., B.C. Camb., M.R.C.S., Eng., L.R.C.P., has been appointed Assistant Resident Medical Officer (not Resident Medical Officer, as previously reported), to Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

MUNRO, DONALD J., M.B., B.S. Lond., has been appointed Honorary Anæsthetist to the Metropolitan Ear, Nose, and Throat Hospital.

Naval.

Surgeon A. R. THOMAS, R.N., and Surgeon A. J. WERNET, M.B., R.N., are promoted to the rank of Staff Surgeon in his Majesty's Fleet.

SAVAGE, Dr. G. H., has been appointed by the President of the Royal College of Physicians of London, Harveian Orator for 1909.

Residents' Theatricals Souvenir.

Subscriptions have been received, and are hereby acknowledged, from the following:—

C. W. Greene, H. J. Henderson, A. F. Hertz, A. Norman Leeming, A. Everard Lees, G. H. Macalister, H. C. Malleson, A. Millard, F. Morres, W. Grant Oliver, M. A. Phillips, F. J. Steward, Geoffrey Wacher, F. E. Walker, C. H. Wells, T. N. Wood.

Trade Notes.

MESSRS. OPPENHEIMER, SON & CO., of 179, Queen Victoria Street, E.C., have sent us particulars of their cultures of lactic acid bacilli for the production of sour milk, which they send out in tubes of 4s. 6d. the doz., each tube being sufficient for a pint of milk. A report on lactic ferments appeared in the *British Medical Journal* for January 9th; anyone desiring to test the treatment should communicate with Messrs. Oppenheimer.

From MESSRS. BALE, SONS & DANIELSSON we have received a copy of their new sanatorium chart, which has been designed in order that the particulars of each case, including temperature, pulse, weight, amount of exercise, etc., may be kept uniformly from day to day for three months, and be available at any moment for reference.

Pass List.

UNIVERSITY OF CAMBRIDGE, January, 1909.—Degree of Doctor in Medicine: G. H. K. Macalister, St. John's.

UNIVERSITY OF LONDON, January, 1909.—Intermediate Examination in Medicine: C. Aldis, B. Blackwood, G. Covell, G. T. Foster Smith, V. Glendining, H. L. Hopkins, G. Marshall, P. J. Monaghan, T. T. O'Callaghan, *B. R. Parmiter, H. P. Warner.

*Distinguished in Physiology.

Preliminary Scientific Examination, January, 1909.—Part I., Inorganic Chemistry and Experimental Physics only: (*b*) A. J. E. Smith. Inorganic Chemistry and Biology only: S. S. B. Harrison, D. M. MacManus. Experimental Physics and Biology only: (*c*) W. L. Gwyn Davies, (*c*) F. H. Dodd, (*c*) W. L. E. Reynolds, (*c*) L. M. Smith. Experimental Physics only: (*c*) S. H. Robinson, (*cb*) J. A. Ryle. Biology only: (*cp*) G. D. Eccles, (*cp*) H. W. Evans, (*cp*) R. Orthin H. Jones. Part II., Organic Chemistry: T. I. Bennett, R. Creasy, S. Keith, J. F. G. Richards, W. Robinson, A. L. Shearwood, H. Webb.

b. This candidate has already passed in Biology.

c. This candidate has already passed in Inorganic Chemistry.

p. This candidate has already passed in Experimental Physics.

CONJOINT EXAMINING BOARD IN ENGLAND.—Diploma in Public Health: A. B. Carter.

Experiences with some Cases of Deafness treated by Fibrolysin Injections.

BY W. M. MOLLISON, M.A., M.C., F.R.C.S.

CASES of deafness due essentially to a deposit of fibrous tissue in the middle ear are to be numbered among the most discouraging that come under the care of the aural surgeon. Such are cases suffering from otosclerosis, chronic catarrh, adhesions after an otitis media, and syphilitic periostitis of the temporal bone—the last often hard to distinguish from a senile deafness.

The treatment of these cases, taken broadly, follows two lines. The first is an attempt to improve the general condition of the patient, prescribing change of surroundings, with complete mental relaxation, and tonics, strychnine, arsenic and cod liver oil; the second, to discover and treat any condition which may be a cause of the deafness—nasopharyngeal or nasal obstruction, pharyngitis or enlarged tonsils, and to periodically and regularly inflate the Eustachian tubes by politzerisation. It may be noted in passing, with regard to politzerisation or the use of the Eustachian catheter, that the more the improvement in hearing by this means at the first sitting, the better the prognosis, and *vice versa*.

Various forms of local treatment have been used with a view to loosening the adhesions in the middle ear, such as injections into the Eustachian tube and vibratory massage; in those cases where the latter has been used in the Out-patient Department at Guy's it has failed to produce improvement. In spite of these various means of treatment, the results obtained are highly unsatisfactory; the disease progresses slowly, and the patients lose hope of ever regaining their hearing.

In these cases under consideration, excess of fibrous tissue is the primary cause of the deafness; this fibrous tissue first knits together the auditory ossicles and causes a sclerosis of the membrana tympani, later passes to the oval window, and finally to the internal ear, leading to involvement of the endings of the auditory nerve. The removal of this fibrous tissue should be the aim of treatment.

Fibrolysin is claimed to remove pathological fibrous tissue, and in some conditions it has undoubtedly met with success; it therefore seemed possible that this drug should be of use in a disease of the ear which is to a great extent inaccessible to surgical manipulations.

The drug is given by injection, and the injections must be continued for some considerable time before an effect is produced, so that the number of patients who can afford the time and are willing to undergo the treatment is small.

Method of treatment.—The fibrolysin used was that prepared by E. Merck, put up in ampullæ each containing 2·3 c.c. It was injected into the gluteal region and in order to diminish the discomfort of injection the skin was first frozen with a spray of ethyl chloride.

Five cases have been treated; all were females. Of these, two distinctly benefited; one, a girl of fifteen, improved for a while, but ceased attending because the injections gave some pain; one was apparently unaffected, though the patient said she heard better; and the fifth case, though quite recent, seems to be improving slightly and is still under treatment.

To judge of the effect on the patients they were examined in a quiet room, and their power of hearing a watch noted, the same watch being used at each examination. At the same time the patient's opinion and that of her friends as to her ability to hear the voice was noted; since this is the standard by which patients measure their hearing, considerable importance was attached to it.

CASE 1.—Eliza I., æt. 52, first attended Out-patients in May, 1907. Deafness in the left ear was absolute, and had begun eighteen months previously: deafness in right ear began nine months before. She had had no otorrhœa and no pain except occasional twinges in the left ear.

On examination, the watch was not heard by left ear, and only on contact by the right. She heard the voice only with great difficulty. The membranes were sclerosed and opaque. She has chronic superficial glossitis.

This patient attended as an out-patient till July 28th, 1908. During the fifteen months she had taken potassium iodide and strychnine, and the Eustachian catheter had been used frequently, but her condition was absolutely unchanged.

Fibrolysin injections were now begun, and continued three times a week till October 1908—that is two to three months. At intervals the Eustachian catheter was passed and the tubes inflated. During this time there was a steady improvement till, on October 6th, examination showed that the watch was heard by the left ear on light contact and by the right at a distance of four to five inches. The patient herself was very pleased, and her daughter said that she could hear better than she had for years. When the patient first attended, her daughter had had to speak loudly, with her mouth almost in contact with patient's ear, and now she could make her hear from one floor of the house to the next.

The injections were now stopped. In one month's time the patient was examined, and now the watch was heard only at three inches by right ear, and not at all by the left, though the patient was still hearing the voice quite well. In another month she only heard the watch at two inches in right ear, and not at all in the left. She was definitely not hearing the voice so well, though much better than when she first attended. She was anxious to start the injections again, and is now undergoing a further course of treatment.

January 21st, 1909.—After three weeks' injections the patient is already improved. She hears the voice better,

and the watch is heard at four inches by the right ear, though not at all by the left.

CASE 2.—Louisa J., æt. 30, attended Out-patients in July, 1908. She came from Dr. Carpmael, under whose care she had been. Her condition then was as follows:—She could only hear the watch on contact with either ear. She had some tinnitus. The membranes were opaque and slightly retracted. No improvement followed politzerisation. Her nose and nasopharynx were clear.

Fibrolysin injections were begun on July 28th, and continued for a month, after which the patient ceased attending. At that time the patient stated she was hearing better than she had for two years, though the watch was heard only on light contact by the right ear, and at a distance of half an inch by the left ear. The patient was again seen on January 15th, 1909. She confirmed the statement that she heard much better after the previous month of injections, but said she now was as deaf as before.

CASE 3.—Alice C., æt. 15, attended Out-patients on July 7th, 1908. She had been deaf for two years; she had had adenoids removed a few months previously, but no improvement had followed; she had never had otorrhœa. The nasopharynx and nose were quite free.

On examination, the tympanic membranes appeared normal. The watch was heard at a distance of one inch by the right, and sixteen inches by the left ear; politzerisation produced no improvement.

On July 14th, fibrolysin injections were begun, and continued three times a week for six weeks. The patient then stopped attending, her condition being very much as it was before, according to the watch test, though she said she heard the voice better.

CASE 4.—Alice B., æt. 37, attended Out-patients in April, 1908, complaining of gradually increasing deafness, which had been coming on for twelve months at least. She had tinnitus in the right ear, but no otorrhœa or pain; though she said she had had otorrhœa from the left ear nine years before.

On examination, the right membrane was a little retracted, but otherwise normal; the left was somewhat opaque. The watch was not heard at all by right ear and at one inch by left. Politzerisation showed the Eustachian tubes patent and produced no improvement. She was treated with tonics, strychnine, and arsenic for two months; after this, on June 2nd, the watch was not heard in either ear.

Fibrolysin injections were now begun and continued three times a week for three months, except for a fortnight in June, when the injection was only given once a week, as the patient did not feel well.

After a month's treatment the patient heard the watch at two and a half inches in left ear, but not at all in right, and said she heard the voice better. At the end of the three months the condition was much the same, watch not heard in right ear and at distance of two inches in left; the injections were therefore stopped, as they seemed to be of no further value. This patient was an optimist, and always said she heard better from the beginning of the treatment.

CASE 5.—Gladys G., æt. 13, attended Out-patients in October, 1908, complaining of deafness of some standing. Her mother stated that she was getting deafer. The girl was very tall and well developed for her age, but anæmic. The nasopharynx and nose were quite clear, and the Eustachian tubes quite patent, and examination of the tympanic membranes showed them normal in appearance. The watch was heard at six inches on the right side, eight inches on the left. Fibrolysin was injected on October 15th, and after this had to be stopped till December, as the patient was ill, evidently suffering from chlorosis. She was kept in bed and given arsenic, and entirely recovered. Injections were started again on December 21st. On examination on January 8th, 1909, the watch was heard at three and a half inches in right ear and at five inches in left. This girl is also having vibratory massage three times a week, with the object of helping the adhesions between the ossicles to soften. The patient was seen on January 21st, 1909, after four weeks' treatment. Her mother was doubtful about improvement, though she thought she heard a little better now and then. The watch was heard at five inches by the right ear and eight inches by the left.

From a study of these cases we are justified in believing that in Fibrolysin we have a drug which may be successful where other means have failed in the treatment of certain cases of deafness.

In conclusion, I wish to thank Mr. Fagge for allowing me to publish these cases, which were under his care; also the sister and nurse in the Out-patient department, who gave most of the injections for me.

Change of Address.

F. R. L. Atkins, M.R.C.S., L.R.C.P. Lond., from Guy's Hospital to Loughborough, Leicestershire.

C. C. Holman, M.A., M.R.C.S., L.R.C.P. Lond., from Guy's Hospital to Addenbrooke's Hospital, Cambridge.

L. Gifford Nash, M.R.C.S., L.R.C.P. Lond., from Baldock, Herts, to Richmond House, Turvey, Beds.

Staff Surgeon C. R. Nicholson, R.N., from H.M.S. *Egmont*, Malta, to H.M.S. *Drake*, First Cruiser Squadron, Channel Fleet.

George Pinder, M.D., B.C. Camb., from Sunny Dell, Crankbourne Road, Douglas, I.O.M., to 85, Hampton Road, Southport.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Sport.

Rugby Football.

UNITED SERVICES v. GUY'S HOSPITAL.

At Portsmouth, on Saturday, February 6th, the Hospital achieved a meritorious victory over the Services, who are at all times a very hard side to beat, and whose records "at home" show that, of recent years, they have been almost invincible.

The Services were practically at full strength, and Guy's had their best team out, the backs excelling, if possible, their Blackheath form. The first fifteen minutes' play was level, neither side being able to claim any real advantage, although on one or two occasions Lyon had a good deal to do to clear from the visiting forwards, who, stimulated by Archer's presence, were in very lively mood, following up well, and exhibiting plenty of dash in the loose rushes. Jones at length intercepted, and gave to Lee, who in turn gave up to Stringer, but Lyon successfully tackled the last-named. The Service forwards rushed the ball back, and established a footing in Guy's "25." Greig and Bonham-Carter tried their utmost to pierce the defence, but no scoring ensued, and Guy's worked back to midfield, where Jones, Lee, and Stringer got going, and all three fulfilled their respective parts perfectly. Running at top speed, they passed and gathered till Stringer ran over the line. Three times was this manœuvre successfully carried out, three tries being registered by Stringer, one of which Stokes goaled, so that at the interval Guy's led by 11 points to 3, the Services having gained a try by a resolute movement on the part of Greig.

Early in the second half the Services augmented their score, Greig making a good opening, which Tagg developed, and Warrington Morris gained the try; Odgers goaled. Back came the Guy's pack in full cry, their well-trained condition standing them in good stead. The ball was eventually punted over Lyon's head, Saner rushing up and touching down. Stokes landed a fine goal from an awkward place. Guy's now had to defend. Grenfell got away, and put in Whitworth with an unconverted score. From now till the close Guy's tackled splendidly, and succeeded in keeping out their opponents till the final whistle. Scores: Guy's, 2 goals, 2 tries: Services, 1 goal, 2 tries. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J. P. Jones, L. Stokes (three-quarters); A. H. Medlock, J. G. Saner (halves); H. Archer, H. R. Mullins, G. R. Hind, A. H. Crook, W. E. Williams, H. Hoby, C. S. L. Roberts, W. S. Stranach (forwards).

REMARKS.—The whole side played so well that criticism gives way to congratulation. It was a great game and a great win, and should do much to give the side confidence. The whole XV. worked splendidly, and such form further encourages the optimistic feeling that the Senior Rugby Trophy should once again find a resting-place on the South side of the river.

GUY'S v. R.M.C. (CAMBERLEY).

The frost had barely got out of the ground at Honor Oak Park last Saturday, but nevertheless, as both sides were on the ground, it was decided to play two short periods. A thoroughly interesting game ensued, though after the first half it was very one-sided, too much so to be exciting. Guy's were without Archer, doing duty in Dublin in the English pack, and Stringer was also absent, acting as reserve three-quarter for England. It would have been particularly gratifying had the hospital captain actually secured his "cap." His recent form quite warrants the honour, and should his play continue at the same high level, one fails to see how he can be passed over for the Scottish match. But to return to Honor Oak Park. Sampson was given a trial in Stringer's usual position, while T. D. Stout deputised for Archer.

The game had been in progress about ten minutes before, in some loose work, Mullins got over with a try, which Stokes easily converted. Just afterwards Costin got away for the College, but he was neatly passed, and then the visitors got going with a strong forward dribble. They passed Lacey in irresistible style, and were in for what appeared a certain score, when Lee nipped in, and saving beautifully averted danger with a touchfinder by the stand. Returning to the attack, Guy's commenced some good passing. Medlock, Jones and Lee, handling perfectly, cut out an opening for Stokes to run round behind the posts. He easily kicked the goal himself.

After half-time the Hospital had things much their own way, the forwards among whom Mullins, Hind and Crook, were excellent. Roberts, also showing good form, kept the visitors penned to their half, and heeling constantly, some very excellent three-quarter play was produced. True, some passes went wide, some were rather wild, but on the whole there was little to grumble at. Mullins re-opened the score with a try on the left. Fine passing sent Samson over in the same place, good kicks at goal by Stokes being unrewarded, but his last effort hit an upright. Next Stokes gathered well, and ran behind the crossbar, easily converting. Lee, on the other wing, scored a clever three points, and Saner closed the scoring with a dash over from the scrum. Stokes landed a lovely goal from Saner's try, but Lee's effort was not converted. The final whistle left the game—Guy's, 4 goals 3 tries (29 points); R.M.C., nil. (nil). Team:—

GUY'S.—G. E. W. Lacey (back); L. Stokes, H. Lee, J. P. Jones, B. Samson (three-quarters); J. G. Saner, A. H. Medlock (halves); H. R. Mullins, G. R. Hind, W. E. Williams, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, T. D. Stout (forwards).

Referee.—Mr. Pawley.

REMARKS.—The forwards played very finely, although the opposition was scarcely strong enough to really test them. Saner and Medlock played very well, but the former should try and get his passes a bit lower; occasionally the ball came away from the scrum base played almost too high for Medlock to reach. One or

two passes missed Medlock altogether. Lacey did all that came his way as completely as usual. Samson, after getting over a little initial nervousness, shaped well. The other three-quarters were excellent, and Jones' splendid generalship conduced much to the good total of points.

ROYAL DENTAL HOSPITAL v. GUY'S DENTAL.

This match—the second of its kind—was played at Honor Oak Park on Monday, February 15th, and resulted in a win for Guy's by 1 goal and 5 tries (20 points) to nil. Guy's turned out at full strength, but the Royal made several changes at the last minute. Guy's lost the toss, and Rosher kicked off for the Royal. For the first ten minutes the Royal forwards had the best of the play, and Guy's were on the defensive. Guy's, however, soon worked the ball back, and, heeling smartly in a scrum, near the Royal line, Medlock scored far out. The kick failed. On restarting, Guy's worked the ball back to the Royal line again, and Morris, smartly picking up in the loose, scored. The kick again failed. Just before half-time Pritchard scored an unconverted try in the corner.

On restarting, Guy's forwards were all over their opponents, and, getting the ball in nearly every scrum, gave their backs plenty to do. Medlock and Miller combining nicely together, the latter scored, wide out, after a good run. Soon after, Davies scored two tries in rapid succession, one of these behind the posts, Pritchard converting. The Royal forwards then kept getting the ball, but could not penetrate the defence, and the game ended in midfield. Team :—

Guy's.—R. Curle (back); J. E. Davies, H. S. Morris, J. S. Cocks, W. C. Miller (three-quarters); C. H. Medlock, G. B. Pritchard (halves); W. Stranach, F. A. Lowe, R. N. Curnow, G. H. Clapperton, E. O. Yerbury, C. G. Morris, R. Hoby, H. Harrison (forwards).

Referee: Mr. L. B. Stringer.

CAMBRIDGE UNIVERSITY v. GUY'S HOSPITAL.

This match was played at Cambridge last Wednesday, and ended unsatisfactorily, the final score being 8 points all. Cambridge scored their points in the first portion of the game, the hospital drawing level during the second half; but they ought to have won the game, several opportunities not being taken advantage of. Archer was away from the pack, and Lee was absent from the three-quarter line, Stringer filling the centre position, while Samson was again given a place on the wing. The Varsity had Pyman away, and MacLeod having given up the game entirely, vacancies occurred, which Bower and Watson filled. Bower does not seem quite so fast as when he appeared at Honor Oak Park, but he has been on the injured list so long that his true form may have not yet returned. Guy's, with the sun at their backs, had quite early to defend, Bower being pushed into touch near the line. Atkinson mulling, the hospital forwards dribbled back to midfield. Stokes got going, but Wright grassed him, and the Varsity pack got down to the visitors' "25," from whence Atkinson gained a try under the bar, Purves unaccountably failing with the place. From a penalty, Stokes narrowly missed kicking a goal, and then Stringer got going nicely, but Atkinson tackled him strongly when a few yards out, and just later Guy's rushed the ball over the line, but Atkinson easily touched down first.

After half-time, Cambridge attacked at once, Wright actually crossing the line, but losing the ball; however, very soon afterwards, Purves rushed down with the ball at his feet, Sutherland joining in the movement, picked up and sent Morton over with a try, which Fraser converted. After this, Cambridge fell away, and, Guy's getting more of the game, an interchange of kicks between the backs ensued; finally, Atkinson's kick was charged down, and the ball bounding over the line Saner reached it first and touched for a try, which Stokes converted. A little later, to the regret of both sides, Wright had to retire, his weak leg giving way. Before the end, J. P. Jones punted over the line, and Stranach gained a try, which Stokes could not manage to add to. Guy's had all the play from now to the end, but they did not score again, and the game ended—Cambridge, 1 goal, 1 try; Guy's, 1 goal, 1 try. Team :—

Guy's.—G. E. W. Lacey (back); L. Stokes, J. P. Jones, L. B. Stringer, B. W. Samson (three-quarters); J. G. Saner, E. H. Medlock (halves); H. R. Mullins, W. E. Williams, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, W. G. Pinching (forwards).

Remarks.—The forwards must show more "devil" in the loose, go for it for all they are worth, and keep the ball at their feet, especially when wheeling. Medlock was very good, but Saner must get the ball away from the scrum more quickly, and endeavour to pass more accurately. Speed in these attacking movements means everything. Slow passing allows the opposition to smother every aggressive movement, and bottle up every attack. The different formation among the "threes" disarms criticism, but Stokes must show more determination, and go for the line with all the vim and zest he can command. Lacey at full-back quite maintained the high standard of play he has shown of late.

We regret that the names of the Irish team in the report of the Dublin United Hospitals v. London United Hospitals match, in our last issue, were incorrectly given. The list of the fifteen should have been as follows:

United Hospitals (Dublin).—R. Wright (Adelaide) (back); J. Beckett (Adelaide), E. C. Deane (Adelaide), P. Daly (Richmond), and J. P. Quinn (Richmond) (three-quarters); F. N. Harvey (Adelaide) and J. Tallon (Richmond) (halves); T. Gardiner (Adelaide), G. Garry (Richmond), T. O'Boyle (St. Vincent), A. Deane (Adelaide), N. Clarke (Dental), P. Cusack (Mater), T. Carroll (St. Vincent), W. H. Lowe (Stevens) (forwards).

Association Football.

GUY'S (Holders) v. EAST LONDON COLLEGE.
LONDON UNIVERSITY CUP.—2nd ROUND.

This match was played at Leyton, on February 4th, and resulted in a win for East London—2—1.

Last year Guy's defeated East London College by five goals to one in the final; this year, however, they caught us with a weakened team. King, Hole, and Humm were unable to play owing to injuries, their places being taken by Cook, Gibbons, and Edey.

The ground was in perfect condition, but a gale of wind blowing diagonally across the ground, together with an exceptionally light ball, made the game somewhat scrappy.

Guy's won the toss, and played with the wind slightly in their favour. The game was very fast, Guy's pressing hard, but with no result. Mitchell completely missed a pass when in a good position, but the light ball quite upset the hospital attack. Wood, in goal, was occasionally called upon to deal with some rather half-hearted shots, and half-time arrived with no score.

On restarting, our opponents were very vigorous, but fully held by our defence. From a free-kick for us, Witts scored. Ten minutes later our opponents' left wing got down, and Wood was beaten by a low cross shot. Later, Jones scored, but was ruled off-side. Shortly before the end, Wood misjudged a dropping shot and gave our opponents the lead. From then until the end was a give and take struggle, but nothing further was scored, and Guy's retired beaten, 2—1.

REMARKS.—On the whole, the team played very much below par, the difficulty of controlling the light ball preventing much combination. The halves were only moderate. Edey dribbled too much. Mills played well, his kicking being very sure, but the entire defence lacked the usual Cup-Tie bustle. Wood was brilliant on occasion, but left his goal rather too often for safety.

UNIVERSITY COLLEGE v. GUY'S.
INTER-HOSPITAL CUP TIE.

This match was played at Perivale, on Thursday, February 11th, and after a typical cup-tie struggle, resulted in a win for Guy's. University won the toss, and kicked off with the wind at their backs. At the outset, play was mostly confined to midfield, but after a short time Guy's began to settle down. From a good centre by the left wing the hospital should have easily scored, but an open goal was missed by Birks and Witts when they were both excellently placed. After this the game became more strenuous, and a good deal of hard charging was indulged in. About 20 minutes from the kick-off, their inside left had the misfortune to get crocked, having to leave the field. This somewhat disorganised their attack, but Henderson and Stoker made several good attempts to get through our defence, but Bastard, at back, was playing a splendid game, making full use of his weight. Our left wing attacked strongly, being well fed by their halves, and just before the interval Birks had bad luck in not scoring after cleverly dribbling the ball half the length of the field.

On resuming, Guy's took up the attack, making continuous pressure on their defence. From one of these attacks, Birks opened the scoring for the hospital with a nice shot. The game was now very keenly contested, and several minor damages were received by both sides which entailed frequent stoppages of the game. About twenty minutes from time the University had another misfortune, their right back having to leave the field owing to a dislocated shoulder. With only nine men their attacks were of necessity rather disjointed, but they played up very pluckily, not giving in until time was whistled. Birks put us further ahead by a clever shot which their goalkeeper was quite unable to stop. Team:

GUY'S.—C. A. Wood (goal); H. R. Bastard, C. H. Mills (backs); C. W. Greene, P. S. Humm, K. H. Hole (half-backs); W. W. Cook, C. J. Witts, T. L. Jones, A. H. Birks, D. A. Mitchell (forwards).

REMARKS.—The team as a whole played together well, and showed some of that vigour and keenness which is a necessity in a Cup Tie. Our forwards, who have shown such variable form this year and who are always a doubtful quantity, combined together well, the left wing putting in some good work, especially during the first half. The halves were all good, and without displaying any great cleverness, played a useful and strenuous game. Greene, at left half, played quite one of his best games. Bastard, at back, was a tower of strength, and was ably supported by Mills who, however, took some time to settle down to his game. Both made full use of their weight. Wood, in goal, did all that was required of him, one of his saves during the second half, when the opposing forward had only our goalkeeper to beat, being deserving of especial praise.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; London Hospital Gazette; Annales de Physicothérapie; St. Mary's Hospital Gazette; Polyclinic; Manchester Medical Students' Gazette; Ceylon Medical Students' Gazette; St. George's Hospital Gazette; Broad Way.

Birth.

LACEY.—On February 15th, at 196, Burrage Road, Plumstead, the wife of Bernard W. Lacey, M.B., of a daughter.

Marriage.

CHASE—PEASLAND.—On January 25th, at Easton Neston, Northamptonshire, by the Rev. Collins, Robert Godwin Chase, M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., of Sewardsley, Chesterfield, second son of George Chase, Esq., Ashley, to Catherine Ada Peasland, eldest daughter of S. W. Peasland, Esq., Showsley Grounds, Towcester.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

March.

Sat. 6. 1st XV. v. Lennox (Away).
1st XI. v. Ramsgate (Away).
2nd XI. v. 3rd Kent Artillery "A" (Away).
Physical Society. Clinical Meeting (President: Mr. A. N. Leeming), 8 p.m.

Mon. 8. Clinical Lecture by Mr. Ormond (Ophthalmology), 1.15 p.m.

Thur. 11. Messrs. Dunn and Rowlands' Take-in (Messrs. Lobb and Townrow).

Fri. 12. Assault-at-Arms and Boxing Display. Physiological Theatre, 7.30.

Sat. 13. 1st XI. v. 3rd Kent Artillery (Away).

Mon. 15. Clinical Lecture by Dr. Hertz (Electrotherapeutics), 1.15 p.m.
Physiological Society's Annual Dinner in the College, 7 p.m.

Wed. 17.

Thur. 18. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Syms and Pinching).

Fri. 19. Residents' Smoking Concert, College Dining Hall, 8.15 p.m.

Passim.

WITH very genuine regret we record the death of Dr. Horrocks. His health had been anything but robust for some eighteen months, and the sad ending of his vigorous and successful career—though a matter of real sorrow to his friends—was not altogether an unexpected event. A palliative operation had been successfully performed, but he succumbed a few days later. Dr. Horrocks sent in his resignation early in February, when the General Court unanimously elected him Consulting Obstetric Physician, an office which he has, therefore, filled for scarcely a month. Even to those who did not know him personally, Dr. Horrocks' burly figure was a familiar feature of the hospital, and he will be sadly missed. We are publishing, as an inset, a photograph of the Guy's Obstetric and Gynæcological Staff, taken only the day before Dr. Horrocks left us, in which his likeness has been particularly successful.

As our last issue went to press, the news was received of the death of Sir Frederick Wills, Bart., in his seventy-first year. He had been staying at Cannes for the benefit of his health, and his condition had somewhat improved, but heart trouble supervened. Sir Frederick was associated all his life with the famous firm of tobacco manufacturers at Bristol, where he started to learn the business as soon as his school days were over. In 1864 he went to London to manage the branch of the business newly opened there. From this time up to the foundation of the Imperial Tobacco Company, eight years ago, the late baronet saw and was largely responsible for the immense extension of the trade and prosperity of the firm. At first a prominent Liberal in the local politics of Bristol, he joined the Unionist party at the time of the Home Rule split, and after one or two unsuccessful candidatures for a seat in Parliament, he was returned for North Bristol at the General Election of 1900, and represented that constituency until ill-health compelled him to retire in 1906. In the public and philanthropic life of Bristol and of Bournemouth,

where he lived latterly, Sir Frederick took a prominent part, and his interest and support of charities in both places will be greatly missed.

His death, moreover, is a sad event for Guy's Hospital. Elected a Governor in 1898, he very early associated himself with the Staff and the School Committee. The lack of suitable library accommodation for the students at that time attracted his attention, the ultimate result being the erection, at his own expense, of the present fine and costly premises which are, probably, unequalled at any other medical school. His liberality towards the hospital funds was also on a generous scale, and his genial kindness to all with whom he came in contact at Guy's will be to many a pleasing remembrance of a kindly personality.

Dr. Savage is giving a lecture, illustrated by the lantern, on some of his Alpine experiences, at Bethlem Hospital on Tuesday, March 16th, at 8 p.m. Dr. Hyslop has very kindly extended a general invitation to Guy's men, and we are sure that many who had the privilege of hearing Dr. Savage speak, a year or two ago, on his mountaineering adventures, which he described as a "Tall Talk," will be glad to hear more, and all who know his powers as a *raconteur* will be glad to have an opportunity of hearing him on a favourite topic.

"R. C." writes to us as follows:—"I hope you will find space to insert this letter to propose that a Smoking Concert be held by the hospital. Other hospitals hold 'smokers' and why should not we, being almost the largest, do the same? I would suggest that a committee be formed at once, and that a concert be arranged before the end of the term." We are pleased to inform our correspondent and the rest of our readers that the long-promised "Smoker" has been arranged by the Residents, and is to be held in the College Dining Hall on Friday, March 19th, at 8.15 p.m., when Mr. Eason will preside. Tickets, price one shilling each, may be obtained from any of the Residents. We do not know whether this concert is of the kind our correspondent had in mind when he suggested a "smoker" held "by the hospital," but at any rate it has the great advantage of being held *at* the hospital. We hear that an excellent programme is being arranged, and everything points to a very pleasant evening being spent. We congratulate the present Residents on having revived a feature of the hospital life, which, we feared, had permanently disappeared.

We are asked to call the attention of our readers to the fact that the Third Annual Dinner of the Physiological Society is to be held on Monday, the 15th inst., in the College. We are not informed what gastronomic novelty has this year been selected to tickle the palates and arouse the curiosity of the guests, but no doubt some surprise is in store for them.

Another forthcoming dinner is that of the Debating Society, which will probably be held on Wednesday, March 24th. Further particulars will be announced later.

The Annual Assault-at-Arms in aid of the funds of the Nurses' Recreation Cottage, and of the Gymnasium, will be held on Friday, March 12th, in the Physiological Theatre, under the presidency of Dr. Pavy. An interesting and varied programme has been arranged, and a large number of outside performers of the first class will add their efforts to those of the members of the Gymnastic Club. Corporal-Major Eggelton, of the Royal Horse Guards, will again give an exhibition of his splendid swordsmanship, and Sergeant Mumford will perform, as last year, on the slack wire. Johnny Summers, the light-weight champion of the world, will spar three rounds with H. Holmes, the amateur light-weight champion; A. L. Oldman, the Olympic heavy-weight champion, and other members of the City Police Athletic Club, will give exhibitions, and a specially interesting feature will be a bout of three rounds between Messrs. A. Allport and E. P. Minett. Several first-rate wrestlers have promised to appear, including Pat Connolly and Alf Hewitt among the professionals, and E. Barrett (the amateur heavy-weight champion) and S. V. Bacon (the Olympic middle-weight champion) among the amateurs. Gymnastic displays on the vaulting-horse, parallel and

horizontal bars, by the members of the Guy's Gymnastic Club, will give some local colour to the proceedings, while a sword exercise display by non-commissioned officers of the Royal Horse Guards, bayonet fighting and a machine-gun display by the 28th County of London (The Artists' Corps), fencing by M. Felix Gravé and Mr. G. F. Haycraft, and a Balaclava mêlée to wind up with, should help to make a programme of great interest and variety. Tickets, 5s., 2s. 6d., 2s., and 1s., may be obtained at the club, from the smoking-room bar, in the Nurses' Home from the Home Sister, or from the Hon. Secretary of the Gymnastic Club.

It is with great satisfaction that we record the fact that our First Fifteen defeated the London Hospital by eight points to nil in the Rugby Cup Semi-final at Richmond last week. The match was played under beautiful conditions of weather and in the presence of royalty. The Prince of Wales arrived punctually at three, and watched the whole of the game from the Royal Box. The pleasing sight of the two rival captains being presented to the Prince was witnessed and loudly cheered by a large and enthusiastic crowd. The game itself was thoroughly interesting, and the two teams were very evenly matched. Both in attack and defence our fifteen were at their best, and there is no doubt that we deserved to win. The other semi-final between St. Thomas' and Middlesex was a drawn game, and has not yet been replayed, so that we do not know at present who are to be our opponents in the final, nor the date when it will be played. In any case we have the best possible chance of once more regaining the coveted cup.

Fire and snow have both had a share in breaking up the monotony of everyday routine at the hospital during the past week. On February 23rd an outbreak of fire occurred in Messrs. Downs' instrument factory in the King's Head Yard behind the Laundry Hostel. Had there been a wind blowing, the position might have been one of great danger to the hospital, and, as it was, there was some anxiety until the fire-engines began to work, when they rapidly got the flames under control. When it became clear that the place was out of danger, anxiety gave way to amusement at some of the incidents associated with the scare.

The recent snowstorm transformed the park into a vision of white beauty, and incidentally provided the material to a number of irresponsible young gentlemen for a series of snow-fights, culminating in a midday mêlée last Thursday.

Now that the therapeutic applications of radium are again to the fore owing to the foundation of a Radium Institute, it is interesting to hear that, at our own Bacteriological department, some experiments have been performed on the action of radium on micro-organisms. So far from dying or fainting in the presence of radium, the micro-organisms, we understand, appeared to revel in the new environment. We hope shortly to publish a paper on the results of these observations.

The news that a strong and influential Royal Commission had been appointed to consider the whole question of University education in London must have brought satisfaction to many who desire to see the future of London University and its associated schools definitely settled. There are a great many problems to be solved, and some of them, no doubt, will be solved by the Royal Commission; in the meantime, we can only say that a very able and impartial Commission has been appointed, and should do much to smooth the difficulties which beset the path of University Education in London.

On several occasions specimens, letters, etc., intended for examination by the Gazette's Special Pathologist have been wrongly addressed "Pathologist, Guy's Hospital," and have accordingly been sent to the ordinary pathological department of the hospital. In order to prevent these mistakes, which might give rise to delay and possibly to great inconvenience, in the future, our readers who send specimens for pathological examination are requested to address all their communications to "The Manager, Gazette Office, Guy's Hospital."

Obituary.

Peter Horrocks, M.D., F.R.C.P.

Peter Horrocks entered as a student at Guy's Hospital in October, 1873. He had already passed the Preliminary Scientific Examination of the London University from the Owens College, Manchester, and he threw himself with characteristic energy into the work at Guy's. At the end of the first summer session he obtained the third prize for first year's students; and at the end of his second year he passed what was then the First M.B. Examination of the London University, and is now known as the Intermediate M.B. At this examination he took Honours in Physiology. A year later he obtained the second prize for third year's students; and the year after that (1877) he secured the Treasurer's Gold Medal in Medicine. A few months later he had obtained the Degree of M.B. Lond., carrying with it the Gold Medal in Medicine, with marks qualifying for the Scholarship, and Honours in Obstetric Medicine. He was House Physician in 1878, and took his M.D. Lond. at the end of that year.

Such a brilliant career was bound to be recognised, and in due course Horrocks entered upon his probation as a teacher by becoming Demonstrator of Anatomy.

Horrocks' original intention was to practise as a physician, and to apply for an appointment on the Medical Staff; and while waiting he took over the charge of the Electrical Department at Guy's, and was appointed Physician to the National Hospital for the Paralysed and Epileptic, intending to interest himself especially in nervous diseases. As an outcome of this he wrote an article in the Guy's Hospital Reports for 1881, on "Reflex Action in Diagnosis"; this was a useful contribution of nearly forty pages to the large field only then recently opened up by Westphal's demonstration that the knee-jerk was something more than a mere schoolboy trick, and had great clinical importance. Horrocks discussed the subject fully and fortified his conclusions by original experiments. However, the final direction was given to Dr. Horrocks' career by the impending resignation of Dr. Braxton Hicks, when Horrocks determined to give up medicine and to seize the chance which lay before him of a vacancy in obstetrics. He was accordingly appointed to the post of Assistant Obstetric Physician in the spring of 1883, while Dr. Galabin was promoted to the senior post vacated by Dr. Hicks.

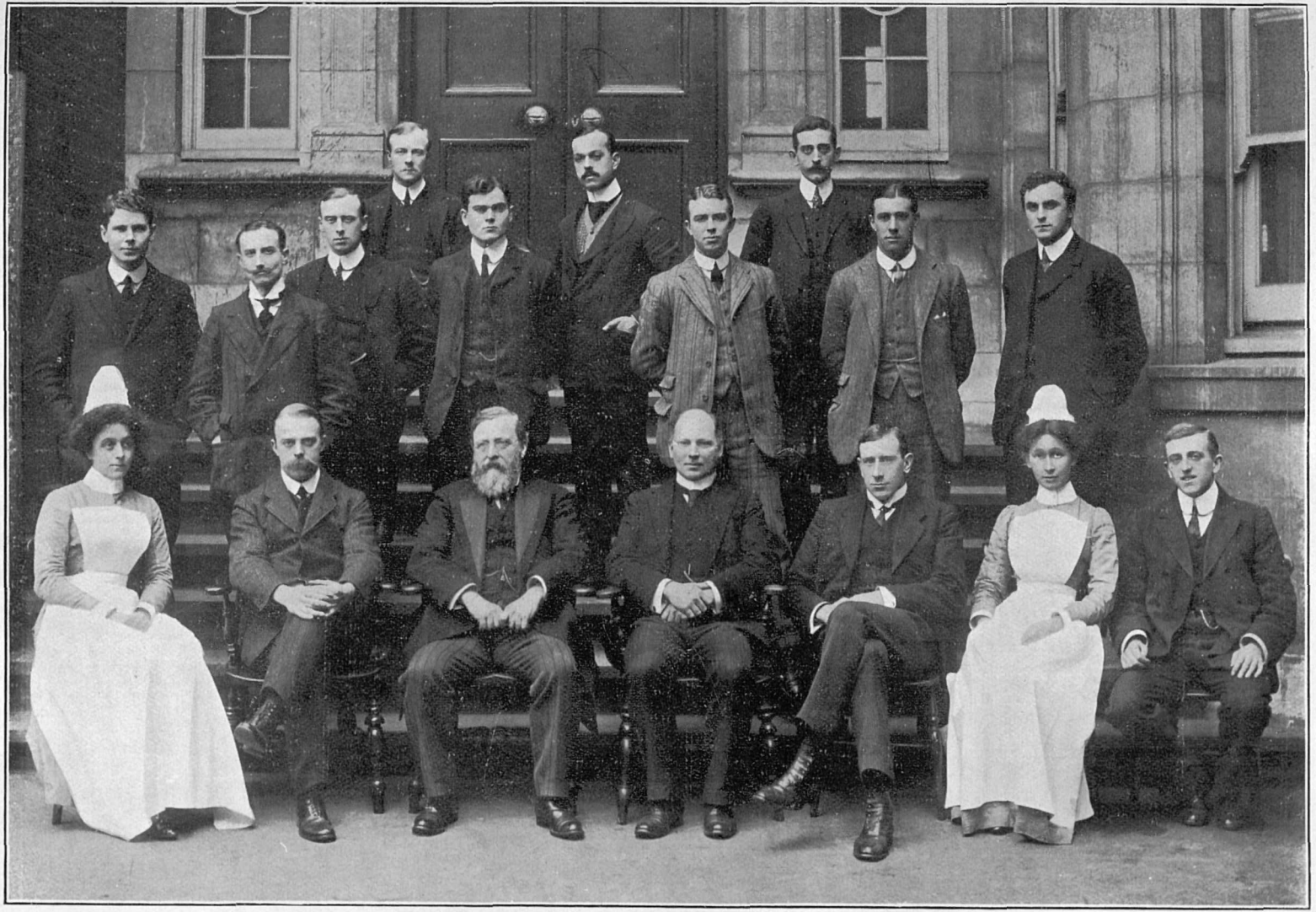
With what success Dr. Horrocks has pursued his profession from that time till the present is well known, and his loss, both as a teacher and as a practitioner, will be widely felt.

As a clinical teacher and lecturer he was clear and emphatic, often even dogmatic, so that he attracted large classes. He came into hospital practice at a time when obstetric physicians had established their claims to perform all the operations required in the diseases peculiar to women; and he was a fearless, but careful and successful, operator.

He was a frequent attendant at the meetings of the Obstetrical Society, was its Honorary Secretary from 1890 to 1893, and its President in 1901 and 1902. He showed specimens at the society, joined in its discussions, and delivered two Presidential addresses; but he read few formal papers, contributed few papers to the Guy's Hospital Reports, and secured to himself the distinction of never having written a book. His contributions to the *Obstetrical Transactions* included articles on "Intravenous Injection of Saline Solution in Hæmorrhage," on "Induction of Miscarriage or Premature Labour," on "Sterility," and on "Concealed Menstruation." An "Address on Modern Midwifery," recently communicated to the *British Medical Journal*, gave rise to a lively discussion. He was elected a Fellow of the Royal College of Physicians in 1889, and in 1898 he delivered the Hunterian Oration before the Hunterian Society.

Dr. Horrocks had a keen sense of enjoyment. He was a genial companion, full of anecdote and reminiscences, and, in spite of a tendency to increase of weight, was a man of great activity, considerable physical strength, and untiring energy. In the early eighties, when the only possible bicycle carried your centre of gravity six feet from the ground, and your feet more than two, he would take exercise on the humbler tricycle, or satisfy his muscular wants with a boat on the river. Later he was devoted to Alpine climbing, and none of us can forget the account of his terrible accident when, while on a narrow ledge of the Zinal Rothhorn, he was pulled out of his footsteps by the slipping of a big stone under the weight of one of his guides.

All three fell; one guide dropped some 70 feet on his feet into soft snow. Horrocks was, as by a miracle, stopped in his downward course by the rope catching on a projecting piece of rock, and he found himself suspended with his back to a vertical wall of rock, unable to help himself. The second guide was thrown headlong through the air, the rope between him and Horrocks broke, and he was found mangled and



Dr. Horrocks and his Assistants.

February, 1909.

Photo: WAYLAND, Blackheath.

dead some thousands of feet below. Luckily for the survivors, another party was above them on the mountain, and Horrocks and his remaining guide were quickly rescued from their dangerous positions. To most men an experience of this kind would have closed the chapter of mountaineering; not so with Horrocks; he did a good deal of climbing subsequently, and even last year spent a short time in his favourite Alps.

As evidence of the same hardy spirit may be mentioned the remark he once made to the writer, on the eve of his departure to America, that he was afraid the weather would not be rough enough to provide him with the full enjoyment of a sea voyage.

Dr. Horrocks, as a rule, had the vigorous health which one might expect in one with the above history. It was in the summer of 1907 that he had the first indications of his fatal illness. An operation became necessary, and was performed about Christmas time of that year, with considerable improvement. But a recurrence of the symptoms took place in the spring, and their continued aggravation led to a second operation. But the disease was too extensive for anything but partial relief, and he succumbed on the 28th February.

FREDERICK TAYLOR.

Chapel Notices.

The following special services will be held on Thursdays, at 8.15 p.m., during Lent:—

March 4th.—Preacher, the Right Rev. H. Mather, D.D., Assistant Bishop of Hereford.

March 11th.—Preacher, Rev. K. H. McMaster, S. Peter's, Bournemouth.

March 18th.—Preacher, Rev. W. J. Conybeare, Vicar of S. Mary's, Newington.

March 25th.—Preacher, Rev. E. F. Russell, Chaplain-General of the Guild of S. Barnabas.

April 1st.—Preacher, Canon R. Rhodes Bristow, Canon Missioner of the Diocese.

The Holy Communion will be celebrated during Lent on Tuesdays, Thursdays and Fridays, at 7 a.m. Evensong will be said daily at 5 p.m. The Chapel is open from 7 a.m. to 10 p.m. for private prayer and reading.

W. A. DUNN, Acting Chaplain.
A. H. SMITH, Assistant Chaplain.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

A Guy's Man in N.W. Canada.

SIR,—Being the first medical man to practise in the Far North beyond all civilisation, it struck me a few lines might prove of interest.

I was informed whilst in Edmonton last winter that the sufferings of the Indians were at times terrible, and no medical aid was procurable, so I decided to settle in those vast mysterious regions. I have a large district, over 1,000 miles, from Fort Smith to the Peel River (Arctic Circle), divided by the Great Slave River, Great Slave Lake (300 miles long), Beaver Lake, the mighty Mackenzie River, supposed to-day to be the largest in the world. Fort Resolution is my headquarters, where I remain during the eight months' winter (here the thermometer is 60° F. below Zero and we are nearly buried in snow). I have a small log cabin (logs and mud) on the shores of the Lake, live chiefly on rice, beans, and oats. Sometimes the Indians bring me cariboo and moose flesh. I am my own chef, laundryman, etc. Three tribes of Indians reside in this locality—Yellow Knives, Dog Ribs, and Chipewyans; others outside are Slaveys and Crees.

The notice I stick up in my log cabin for the Indians is in Chipewyan (pronounced Chip-y-an). The nearest translation into English is—"The medicine man says, if you come to him for sickness, he expects to have three skins; if medicine is wanted, three skins also." [N.B.—Three skins equal one dollar. Skin money is the only form used in the North.] It is very seldom I get any fees, as they are too poor.

Phthisis, tuberculous diseases, syphilis, etc., are common; malarial fever in the early "fall" was severe. Accidents due to "axe" slipping are frequent. Some are most serious. Women give birth to children in the squatting position; the Indian women surround the patient, and watch the event with interest, the men and children are also amongst the audience. I am not required for such, except when things go wrong. I shall hope later on to send some notes of interest; but I have only just time to get this out.

Indians are fond of old magazines with pictures, and old linen for bandages, etc., I should welcome. My fees amount to two dollars a month, so I shall not become rich. The journey "out here" is shocking and dangerous, I was nearly wrecked in the rapids, the "scow" broke in half; an Indian saved me in his canoe.—I am, yours very truly,

JAMES F. RYMER
Fort Resolution, (Guy's, '81).
Great Slave Lake, N.W.P., Canada.
12th December, 1908.

[P.S.—Should Guy's men send old books for Indians, they could be sent through Hudson's Bay Company, London, and carriage prepaid, as I should then be certain of receiving them.—J. F. R.]

Guy's Hospital Debating Society.

Annual Ladies' Night.

THIS meeting was held on February 20th, Dr. Savage, the President, occupying the chair. About sixty members and visitors were present. It was moved and carried that ladies should be admitted also to the next debate. The Chairman then called on Mr. Ball, who moved, "That this House believes that it is better to have loved and lost than never to have loved at all." Mr. Schlesinger opposed; Mr. D. Scott seconded the motion and Mr. Marshall the opposition. In the discussion which ensued, Messrs. Ryle, Minett, Levinson, Penny, Mullally and O'Callaghan, Miss Stebbing and the Secretaries took part. When the motion was put to the House, there voted—For, 25; Against, 18. The motion was therefore declared carried. A vote of thanks to Dr. Savage for taking the chair concluded the proceedings.

Debate on Socialism.

This was a special debate, held on February 27th, and also open to ladies. Dr. Pembrey took the chair, and about 110 members and visitors were present. There being no private business, the Chairman at once called on

Mr. G. R. BLANCO WHITE (of the Fabian Society), who moved, "That this House approves of the Socialist ideal." After remarking that the twenty minutes allotted to him were totally inadequate time in which to fully describe the tenets of Socialism, Mr. Blanco White proceeded to contrast labour conditions and ideals of a hundred years ago with those of to-day. Then we had child labour, long hours, low wages, and all their attendant evils, and no other ideal but the best possible profit to the employer; now we had Factory Acts to promote the good of workers, Workmen's Compensation, Public Health Acts, and the medical inspection of school children. All this body of socialistic legislation moved away from the old ideal of *laissez-faire*; it was designed to help those classes of the community who cannot help themselves; it might be described as "State action designed to promote the common good," which the speaker offered as a definition of Socialism. The distinction between individualism and Socialism might be illustrated by the people leaving a burning theatre: in the one case with no organisation, in chaos and panic; in the other, decently and in order. Socialists, extending the scope of legislation such as had been mentioned in other directions, had conceived an ideal state, and their poets had described it. But, as practical people, we are not much concerned with the ideal State; the fact that Socialism could be made to work in practice was the really important one. Anti-Socialists opposed State action of this kind by calling it "State interference"; business men opposed it because they thought it would diminish dividends. That was not altogether true, because an eight-hour day, for instance, often made workers more efficient. But then, even if it did diminish dividends, were they as important as the health and happiness of the community? That was a great test question to which the Socialist returned an unqualified "No." Similarly, with regard to the medical inspection of school children, the important thing was not the rates, but the children. The test of a healthy State was not the size of the profits made by its rich men, but the health and strength of its human population; as Ruskin had said, "The health of the nation is the wealth of its citizens." Of course, some Socialistic legislation had failed, but then, so had much that was non-Socialistic; in any case, a law was only an experiment. In conclusion, Mr. Blanco White said he would reiterate his definition of Socialism, laying special stress on the words "common good."

Mr. THOMPSON opposed the notion, which he thought was very cunningly worded. We were all in favour of some Socialistic ideal, but then Socialists differed so among themselves in their ideals. If we were to apply these ideals to the poorer classes, we could not logically stop with Man, but must apply them also to the animals, and ultimately, perhaps, bring ourselves down to the level of amœbæ or typhoid bacilli. Criticising some of the points of the hon. proposer, the speaker said that trade was bad one hundred years ago, not because there were no Socialist laws, but because it was just after the Peninsular War. The simile of the orderly crowd leaving a burning theatre implied leadership; whereas a State under Socialism was like a sheep without a shepherd, or a boat without a steersman. The rank and file could manage to get along well enough when there were no emergencies to cope with, but were incapable of dealing with those. Mr. Thompson went on to speak of Socialism in the light of the survival of the fittest, such as obtained among seagulls. According to the Socialist ideal, the strong and intellectual were to be mulcted in very heavy damages for their strength and their intellect. The decline in the birth-rate and physical deterioration were two immensely important matters which he thought would be only increased by Socialism, which was only another word for luxury. He advised Conservatives not to philander with social reform. The most Socialistic law ever passed—the Workmen's Compensation Act—had been carried by a Conservative Government almost without discussion, and that, he thought, had vastly increased unemployment. Finally, if England was to be Socialised, the whole world must be, which would lead but to confusion worse confounded.

Mr. T. I. BENNETT, seconding the motion, dealt with two aspects of the Socialist ideal—the scientific and the practical. He spoke of the anomalies of inheritance by the eldest son, and unearned incomes. The latter harmed both their owners and the people who really earned them. Unemployment was profitable to employers, since it lowered the cost of labour, but it was expensive to rate- and tax-payers. The report of the Poor Law Commission showed that two millions annually were spent in England on people whose wages were

insufficient to keep them alive, and the workhouse was not so pleasant that these men remained unemployed on purpose. Opposers said that Socialism was impracticable, and when they were met by practical Socialistic legislation in working order, they denied that it was Socialistic. Some of the proposals of Socialists of twenty years ago were now definitely accepted by Liberals of to-day. As regards the survival of the fittest, the "fittest" were not always the best. It was not true that wars eliminated the unfit. The Napoleonic wars took six inches off the average stature of the French nation. (Hon. opposer: "The Socialistic French Revolution did that.") The decline of the birth-rate had been mentioned, but that had no connection with Socialism; it was most marked among the idle and professional classes.

Mr. RYLE, seconding the opposition, dwelt on the dangers and impracticability of Socialism, which took away the great incentive of competition from business concerns. State-owned manufactures tended to stagnate, and were not extended or improved upon, being free from competition. For instance, French matches and tobacco were sufficient proof of the evils of State monopoly. No less important were the moral effects of Socialism, which would breed an entirely unresourceful community—a nation of unenterprising dullards. Socialism would destroy the innate tendency of individuals to self-preservation; it would crush art and literature; it would break up the security of the family, already seriously in danger on account of Old Age Pensions and the Feeding of School Children.

The subject was now thrown open to discussion, and on the motion of Mr. Schlesinger, seconded by Mr. Cook, the usual time limit was extended. A long and interesting discussion ensued.

Mr. SCHLESINGER rose at once, saying he did not wish any mock modesty to hinder the debate. Socialism, he thought, was a most pernicious thing, for it meant general luxury, but luxury very limited for everybody, and there were few things more pernicious than moderate luxury. It had been said with truth that Socialism would be a roaring success but for Socialists, who did not know what they wanted themselves. Under Socialism, a man would have no incentive to rise in the world; as it was, the feeding of school children—which was the worst of all the bad things done by Socialists—removed a working man's one incentive to work.

Mr. MENAGÉ supported the French State monopoly in matches, on the ground that it was a very profitable source of indirect taxation, which did not bear unjustly on anyone. State-supported theatres, again, had not in France crushed art as some had suggested Socialism would do.

Mr. GEORGE declared that State monopoly was not a panacea for all ills, and that the doctrine of the equality of man was unphysiological. Socialism wished to break up the English home, whose isolation was one of the best possible things for the race.

The JUNIOR SECRETARY had hoped to hear some intelligent objections to Socialism advanced, and had been disappointed. The Socialist, he said, was really the only man who could find the weak points in Socialism. Much opposition to Socialism was made by people who knew nothing about it, and by people who had formed a grotesque image of it in their own minds, and then proceeded to throw stones at it. The weakening of parental responsibility had been referred to, but a respectable mother would always tend her own child in any constitution, Socialistic or no. The survival of the fittest had been mentioned, but where was the man, or scientist, however great, who could interfere with Nature in that? Mr. Cook went on to advocate the socialisation of medicine and nationalisation of hospitals.

Mr. SCOTT supported the motion, because, he said, Socialism was an inevitable product of evolution, as the economic history of the last 150 years showed. Socialists did not advocate any violent or sudden change, and the disintegration of family life was not necessarily a part of their propaganda.

Mr. LAYTON dilated on the subject of ambition, which, he said, distinguished man from the lower animals. If Socialism could be realised, man would become a mere machine, and his ambition destroyed. This state of unstable equilibrium could only be maintained for a time, and then a reaction must come. The Socialist ideal was but a dream, and would fade away, but in the meantime it was doing harm, and must be checked.

Mr. O'CALLAGHAN drew a distinction between the Socialism proclaimed at the street corners and that preached at the meeting. Equal division of property was an impossibility; even were it once done the capable members of society must always become the richer.

Mr. LOBB pointed out that we were obliged to accept, for voting purposes, the hon. proposer's conception of the Socialist ideal, which he denied was the ideal of Socialists generally. Socialists wanted to do everything at once, but human nature, which had to be reckoned with, was frail, and would not stand the change.

Mr. MULLALLY thought that the present state of society tended, rather than Socialism, to atrophy ambition; in Australia, where an eight hour day was universal, there had been no loss of ambition in the working-man. We must be careful not to accept the views of ignorant street-corner ranters as Socialism any more than we should accept the views of certain newspapers as representatives of Tariff Reform.

Mr. POMEROY said that the notion of socialising the lower animals was fantastic; the possession of a moral sense by man had been overlooked. So, too, the idea that art would be adversely affected by Socialism was absurd, since art—even now—was pre-eminently not self-seeking.

Mr. FREMANTLE, speaking as a former attender of the meetings, congratulated the society on the success of the debate. He himself had broken up his family peace in order to come, and yet was not a Socialist. The hon. proposer's definition of Socialism was the ideal of every political party. Mr. Fremantle quoted from the basis of the Fabian Society, which consisted, he said, of the more weak-kneed, half-hearted members of the cause.

In connection with Socialism and art, Watts had been mentioned, but he was a very good example of a great artist working under the present system and aided by his acquired wealth. Many measures proposed by Socialists, such as the medical inspection of school children, were to be commended, but when Socialism threatened to lay hands on capital, we must give pause; capitalism was not only inevitable, but the best system.

The CHAIRMAN now called on the hon. opposer to reply, and Mr. THOMPSON continued the argument of his former speech, and dealt with some of the difficulties of workmen's compensation, with free love, and with force as the final argument. He regretted the Socialistic tendency of some municipalities.

Mr. BLANCO WHITE, replying for the motion, said that the views of two or three Socialists on free love were as irrelevant as those of ordinary people. It had been contended that his definition of the Socialist ideal was true of all political parties, but that was only partially true, for some parties spoke too much about the profits, and the "common good" was not their one aim. The question was simply one of more or less Socialism. Referring to some points which had been made—Socialism would not in any way do away with ambition; production would not decline under Socialism for lack of incentive, it would rather increase, for the organisation of labour increases production. As regards the feeding of school children, it seemed a strange argument that we must keep the children starved for fear of damaging the fathers' morals.

The Chairman now called the division, and there voted:—For, 25; Against, 57. The motion was therefore declared lost.

Mr. Turner proposed a vote of thanks to Dr. Pembrey for taking the chair, and Dr. Pembrey briefly replied. A vote of thanks to Mr. Blanco White for kindly coming to speak was proposed by Mr. Schlesinger, and carried with acclamation.

Refreshments concluded a very successful meeting.

Notices.

University of Cambridge.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES, PART II.

Alteration of Date.

The Examination in the Easter Term, 1909, will begin on Tuesday, June 8th, instead of on Tuesday, June 15th, as previously announced.

JOHN WILLIS CLARK,
Registrary.

25th February, 1909.

The London Ophthalmic Exhibition,

March 12th and 13th. Hours 12 noon to 10 p.m. each day. To be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, London, W.

This is the first Ophthalmological Exhibition in Great Britain. A number of Optical Firms of repute are showing the latest optical and ophthalmological appliances; others are showing surgical instruments, the latest models of eye instruments, together with dressings, drugs, new models of sterilization, microscopic appliances, books, etc.

It is hoped that certain tricolour reproductions of eye conditions may also be shown.

The object of the London Ophthalmic Exhibition is to bring under the notice of medical men, and especially of ophthalmic surgeons, the latest models and improvements that have been invented during the year.

Every endeavour will be made to make the Exhibition interesting to those attending.

Special invitations will be issued to all members of the Ophthalmological Society, and to a large number of medical men, and to those interested in ophthalmic work.

Tea, coffee, light refreshments, etc., will be served on the Saturday afternoon from 4 to 5.30 p.m.

Tickets will be sent free on application to the Organizing Secretary, Ernest Schofield, 11, Chandos Street, Cavendish Square, London, W.

Birth.

HOLMAN.—On the 2nd instant., at Galeston, Eton Avenue, N.W., the wife of Frank Kay Holman, M.D, M.R.C.S., L.R.C.P., of a son.

Marriages.

ATKINS—BURRUP.—On the 20th inst., at Christ Church, Purley, by the Rev. Courtenay Gale, Vicar of Christ Church, Sutton, assisted by the Rev. R. Resker (Vicar of the Parish), Frank Robert Lowth Atkins, M.R.C.S., L.R.C.P., of Loughborough, to Constance Muriel, daughter of Frederick William Burrup, of Burnham Lodge, Purley.

WICKHAM — MORRAH. — On January 26th, at St. Thomas', San Thome, Adgar, Madras, by the Rev. G. H. Smith, Incumbent, Leonard Latham, third son of the Rev. H. J. Wickham, of Winchester, to Gertrude Edith, third daughter of the late Colonel Morrah (formerly of the 60th Rifles), of Winchester.

Death.

HORROCKS.—On February 28th, after an operation, Peter Horrocks, M.D. Lond., F.R.C.P. Lond., aged 56 years, Consulting Obstetric Physician to Guy's Hospital, seventh son of the late George Horrocks, of Farnworth, near Bolton, 42, Brook Street, W. Interred Norwood Cemetery, March 4th, 1909.

Aphasia.

CLINICAL LECTURE BY G. NEWTON PITT, M.D.

Gentlemen,—To-day I am bringing before you the subject of Aphasia. I gave a similar clinical lecture fifteen years ago, but our views have altered somewhat since then. I will first point out what are the current theories, as the whole question has recently been put into the melting pot again by Professor Marie, who disagrees with the views which have been held for the last thirty years.

Briefly, I may put the matter in this way—that in order to express our thoughts it is necessary to have images, so that we can represent them. These images consist of many complex factors. On the one hand, there are facts derived through sight and hearing; and, on the other hand, there are the qualities which we appreciate by touch, smell and taste. The essential factors for speech are mainly those connected with impressions received by means of our ears and eyes. Now, for articulate speech you must, in addition, connote certain movements of your tongue and lips, &c., in order to produce sounds corresponding with the impressions, and thus you have two distinct portions of the mechanism of language; on the one hand, the motor mechanism, or the mechanism of expression, and on the other the sensory or afferent, or the phenomena connected with its comprehension. The first author to collect definite facts with regard to defects of language was Broca, who, in 1861, examined twenty cases, and pointed out that defects of speech were associated with a lesion in the third left frontal convolution. There are two brains preserved in the Duputryen Museum, in Paris, which he put up to illustrate this. They have till recently always been looked upon as proving his contention. It was found, when he had once drawn attention to it, that in the great majority of cases of defective speech a lesion in this region could almost always be found. The exceptions were supposed to be in left-handed men. But when Professor Marie looked at these specimens a few years ago, it was obvious that the first specimen showed not only a lesion of the third frontal, but also extensive softening and wasting of the convolutions in the region of the Sylvian fissure. So this brain did not conclusively prove that the mechanism of language was located in the left third frontal convolution. The second specimen has never been cut or at all carefully examined, and the opinions expressed about it differ. Dejèrine holds that it shows quite definite softening in the posterior parts of the second and third frontal, and the inferior portion of the ascending frontal. Marie and others are very doubtful whether the case was one of aphasia, and whether there is any gross lesion in the brain. He looks upon it simply as the atrophied brain of a senile dement—the patient was over eighty years of age. He has suggested that the brain should be submitted to a committee, and cut up in serial sections. The matter is only of historical interest, but it shows that neither of those specimens prove Broca's contention. In 1869, Bastian showed that a patient might not understand what was said to him, and yet he need not be deaf: that a patient's capacity for hearing noises might be normal, and yet he might not be able to understand what was said. Wernické, in 1874, drew attention to the fact that aphasic cases might be divided into two classes, motor and sensory. The sensory aphasic cases, he said, were associated with lesions limited to the area involving the supramarginal and angular convolutions, and the posterior and possibly the middle portion of the first and second temporo-sphenoidal convolutions on the left side. Then Kussmaul, two years later, suggested that we should use the term "*word-blindness*" if a man could not understand what he read, and associated this with a lesion of the angular and supramarginal gyri; and "*word-deafness*," or inability to understand what he read, with a lesion in the posterior part of the first and second temporo-sphenoidal. Exner, in 1881, was the first to draw attention to the fact that probably there was a writing centre in the second frontal lobe. Hitherto these views have met with general acceptance; that is, that there are two afferent centres, auditory and ocular, and two motor centres, one for writing and one for speech, and that they may be separately involved. However, in 1891, Dejèrine came to the conclusion that there was not sufficient evidence in favour of there being a writing centre; and that damage to these other centres was quite sufficient to interfere with the capacity for writing. He was of opinion that failure of the internal mechanism of speech would explain the phenomena. About the same time, also, he drew attention to the fact that there were two kinds of word-blindness—word-blindness associated with defective writing, allowing, at the most, of slavish copying, due to a supramarginal lesion; and cases in which there was no defect of writing, the former being a sensory aphasia and the latter a lesion

of fibres to the lingual gyrus associated with hemianopia. Souques has recently disproved the truth of this suggestion.

Aphasia is the loss of one or more functions of speech with integrity of reception and phonation. Intelligence is present. At the present time we differentiate the sensory aphasias where a patient may use many words but badly, and we make another group of motor aphasia, in which there is difficulty in speech, and a patient can pronounce but few words and no others, although the movements of the tongue are not paralysed. Broca's definition included all forms, and no doubt there is hardly ever a single localised lesion. Dejèrine, however, describes a pure motor aphasia in which there is no difficulty in comprehending language, with no word-deafness, word-blindness, nor agraphia, which defects are always more or less present with Broca's aphasia, and he considers it due to a sub-cortical lesion in the third frontal region.

Marie's contention is that we are not justified in dividing up this area of the so-called sensory portion of language into definite centres for storing ocular and auditory images; that the images we form consist of many factors; that probably a considerable area of brain is actively concerned in the process; you cannot separate the factors obtained for the image through the ears from that obtained through the eyes. We might just as well assume, he says, centres for bicycling, for piano-playing, and for each form of exercise. He looks on the whole of Wernické's area as the afferent centre, and according to whether the lesion is in the upper or lower part there will be more defect of reading or of speech. He particularly insists that the defect is not one merely of sensation; he says it is a mistake to speak of sensory aphasia; practically aphasia always implies a defect of intelligence; it is an impairment of the faculty of comprehending language. This is undoubtedly true; we have a careless way of speaking of aphasia as a sensory defect, whereas, when you come to analyse it carefully, there is no doubt also a defect of comprehension. He also has come to the conclusion that under no circumstances whatever has the third frontal convolution anything to do with motor aphasia; that all cases of aphasia consist of lesions in either Wernické's area, or in the lenticular area, or in both. This latter he defines as limited by two transverse planes through the anterior and posterior part of the lenticular nucleus, extending from the island of Reil outwards and to the ventricle inwards. The upper and lower limits he leaves undefined. It will include the capsules the claustrum and lenticular nucleus. He has never seen a case of word-deafness with a temporo-sphenoidal lesion, and he has never seen word-blindness with a lesion in the supra-marginal gyrus, and he challenges anyone to produce such cases.

Therefore, there are two totally different views, and I would like to draw attention to the discussion which took place last year in Paris, and the conclusions which we may draw from it. But I want clearly to point out that aphasia is not a question of paralysis, but of defect of language. The aphasic patient is able to move his tongue and lips without any difficulty. It is true that in many cases of aphasia there may be also hemiplegia, and in such there may be also defective movement of the tongue. The aphasic patient does not remember how to place his tongue and lips so as to evolve certain sounds to express definite ideas: there is a difficulty in performing these movements in their proper order and intensity for a particular purpose. From the term aphasia we must exclude persons who are blind, deaf or insane, or in any other way mentally deficient. An insane or hysterical person may be mute because he has no will to speak or no ideas to express. The reason a person does not speak may also be because he is deaf. Mutism is not uncommon as a result of deafness.

I will now refer to three examples. The case which we have at the present time in the ward does not lend itself to much discussion, because the child is practically speechless, though not wordless. She is fourteen years of age, and has mitral disease with embolism of the left middle cerebral artery. "Sore" was practically the only word she used at one time; but during the last ten days she has begun to extend her vocabulary. She can say after me such words as "sovereign" and "shilling," but not voluntarily, and yet she cannot repeat much more simple words. When she repeats a word the stimulus is far stronger than if she speaks it spontaneously. She is able to copy letters, though somewhat imperfectly with her left hand, and she understands very simple verbal instructions, though not what she reads. So there is little doubt that she has an extensive lesion, involving the greater portion of the area supplied by the left middle cerebral artery, involving the third frontal and island of Reil, with the temporo-sphenoidal and most probably the supra-marginal convolutions. A lesion of the auditory area is much more obtrusive in its results than one in connection with the visual area.

To give another example, a man under the care of Mr. Fagge was in the hospital last spring with a temporo-sphenoidal abscess following left middle ear disease. At first he made certain mistakes when talking, using wrong words. A little later he had definite jargon aphasia—he talked nonsense, so that we could not understand his sentences at all. He was voluble, but he simply spoke a series of inconsequent words, yet he could write quickly, and with very fair accuracy. But on attempting to read, he made gibberish sounds. Answering questions was limited to "Yes" and "No," and he only partially understood what was said. He had sensory aphasia, due to a temporo-sphenoidal abscess. He gradually got quite well, after the abscess had been drained.

Another patient had right hemiplegia, with aphasia. He was asked to write down something for us to read. He wrote: "Bournemouth many houses at 37,000 pine tees boy sand sea rides needles against Osb." That is a characteristic letter from a man affected with what is called sensory aphasia. Probably what he meant to convey was that he had been to Bournemouth, where there were a great many people and many houses, that the population was 37,000, that there were pine trees, and boys digging in the sand, and that on the other side of the sea were the Needles, and Osborne. Another letter was absolutely incoherent. Where some words are left out and some are misplaced, the condition is called paraphasia, and if it is still more unintelligible, one uses the term jargon aphasia.

I have not time to go into more detail about these cases, because I want to bring before you the result of the Paris discussion. The current view, as defended by Professor Dejèrine of the Salpetrière, may be given as follows. It is convenient to divide aphasia up into several varieties. There is, first of all, Broca's aphasia, associated, we assume, with a lesion involving the cortex of the posterior part of the third frontal convolution. With such a lesion the patient can use very few words, sometimes none. Sometimes the vocabulary does not consist of more than four, which he will use for all purposes, and which he has no difficulty in pronouncing, although he cannot pronounce other words, and in that point he differs from a patient with bulbar paralysis, or with paralysis of his tongue, who loses the use of his tongue for all sounds equally. There is almost always inability to write, and in many cases there is a disturbance of internal language, so that he does not properly understand everything that is said. We associate this with a lesion of the cortex, and the point in dispute is whether the symptoms can be produced by a lesion at any place except at that one spot. What is sometimes called pure motor aphasia is a condition in which the lesion is said to be subcortical; the patient will be unable to say many words, but he can understand everything that is said to him; his writing capacity is not interfered with, and he is able to copy. Dejèrine says all cases of pure motor aphasia have been preceded by Broca's aphasia.

The sensory aphasias generally divide up, according to our present view, into the auditory and the ocular. In the auditory, the patient has word-deafness; he does not understand what is said, he reads imperfectly, and there is always a good deal of disturbance of the mechanism of speech. In the ocular form there is word-blindness; the patient does not understand what he reads, and his writing is very imperfect. If he copies, he can only do so mechanically; he cannot convert printing into writing.

There are also two sub-forms, which Dejèrine designates true auditory aphasia, and true ocular aphasia.

First, as to the true auditory type. He applies that term to sub-cortical lesions, which do not destroy the centre, but cut it off from the portions of the brain where auditory stimuli are received. The patient, in this form, can understand perfectly what is said, and he can write from dictation, but he cannot speak properly; he is paraphasic.

Where there is a lesion of both temporal lobes the patient is completely deaf. But if only one temporal lobe is affected the patient is not deaf. It is when that centre is cut off from both temporal lobes true auditory aphasia develops; he would understand what is said, but cannot talk properly. With a left supramarginal lesion he can understand what he reads, but he is unable to write and read properly. True ocular aphasia is due to the cutting off of fibres from the supramarginal convolution to the occipital lobe. The lingual, fusiform and occipital lobes are where impressions of sight are received, and this lesion is always associated with hemianopia. The fibres from the occipital region run up and find their way through the internal capsule to the geniculate body, and on to the left side of the two eyes. If there is a lesion which is sufficiently deep to cut through these fibres (the radiations of Gradiolet), you find not only word-blindness, but also hemianopia.

Professor Marie, of the Bicêtre, after examining one hundred cases of aphasia, and fifty post-mortems, for this purpose, objects entirely to our present conclusions. He says aphasia has nothing to do with a lesion of the cortex of the third frontal or Broca's convolution, but is due to a lesion in the Wernické zone with or without one in the lenticular zone. Dejèrine says this is not so; that the lesion of motor aphasia is always in the third frontal; and if there is sensory aphasia it may be either ocular or auditory.

Has any case been recorded in which the lesion was limited to the centre of the third left frontal convolution? Though many hundreds of cases of aphasia have been recorded, when you look through the evidence it is astonishing how few have been really carefully mapped out and observed so as to settle this point. Dejèrine was able to bring forward about ten cases; but these were criticised by his opponents, and, I think correctly, and it was shown that in almost all of them there were other lesions. In several of them there was also a lesion of the right third frontal convolution. In several the mischief extended back into Wernické's area. There are perhaps five in which the lesion was limited in the cortex to Broca's area, but in every one of them it extended deeply, and obviously there was not merely a cortical lesion, but also one of the subcortical white fibres. If you make a transverse section of the brain at the anterior margin of the lenticular nucleus you find, although it does not reach as far as the third convolution throughout the whole of the vertical line, it does so in the upper part; and whenever a lesion has involved the third frontal convolution it has also invaded Marie's lenticular area. The question at issue is, is the essential lesion beneath the cortex, or is it in the cortex itself?

Next, are there any cases of Broca's aphasia in which this lesion was not present? Moutier, Souches, and others brought forward five particular cases at the meeting, in which the third frontal cortex was not affected, but in every case the white fibres immediately under the third frontal were affected. Dejèrine said it was true the cortex was not always involved, but the fibres from the third frontal were. There is also uncertainty with regard to our present knowledge as to the exact size of the area. No one has accurately defined its limits within a quarter of an inch or more in every direction. Further research will be required to solve this point.

Next, is there an essential distinction between Broca's aphasia and aphæmia or pure motor aphasia? Dejèrine says there is, but he allows that almost all his cases of true motor aphasia have been preceded by Broca's aphasia; that is, the patient when he first has aphasia is unable to understand what is said, is unable to copy, unable to write; and yet later on as he improves, although still he cannot talk properly, is able more or less to do those other things perfectly.

Up to the present time, then, not a single case has been recorded in which the lesion has been limited to the cortex of Broca's convolution. In every case in which the cortex has been involved, the lesion has also extended into Marie's lenticular zone. He allows that in half his cases Broca's cortex has been involved, but he considers it an accidental occurrence.

Marie considers that the anarthria (or motor aphasia), which he says is associated with the lesion of the lenticular zone, is an inability to use the muscles of speech, but not a paralysis.

His opponents point out that no case of motor aphasia has been published in which the lesion has been limited to either the lenticular nucleus, the external capsule, or the claustrium, and that if the internal capsule is involved, there is paralysis of the tongue and lips for all words, and that this differs from aphasia.

Sensory aphasia.—Marie insists that he has never found a case in which a lesion limited to the supramarginal and angular gyri has produced word-blindness, or one in the temporo-sphenoidal which has caused word-deafness. When you look at the cases which have been reported you find that although they have been supposed to illustrate these points, they always extend into other regions, and the changes are generally considerable. When you come to consider them critically, the evidence, on the whole, is in favour of Marie's view, that we must take the whole of this area as the area for the mechanism of comprehension of language; that a lesion in the temporo-sphenoidal will interfere with the capacity for reading and for writing; that the images are built up in a very complex way from both centres, and that it is probably not accurate in considering speech defects to divide the area up into two separate centres, as has been done hitherto. Still, it is convenient to remember that whereas in one patient the lesion will be chiefly in the angular region, you get others in which word-deafness is most marked.

I need not give you details of the cases, but there was only one brought forward in which the lesion was accurately limited to the cortex of the temporo-sphenoidal lobe, and that case was due to infantile paralysis. The evidence there was that there were symptoms in addition to those due to word-deafness. Every other case which

has been reported has had a multiple lesion. Souques, who has been working at the subject lately, said that in the last ten cases of aphasia which he examined there was a lesion in Wernicke's area in every one; in only three was Broca's area involved.

Next, there are cases on record in which the left third frontal convolution was involved, and there was no aphasia at all. The objections to the few cases of that kind which have been reported are that they are patients whose previous history was not completely known. There is no doubt a patient may have an attack of aphasia from which he may recover completely, and if you see him later on you may find, at the post-mortem, a lesion in the third frontal convolution, and yet you may not, while he was under your observation, have detected aphasia. But that is no proof that he has not had aphasia previously, because cases are on record which illustrate that point.

Broca insists that in all these cases of sensory aphasia there is defective intelligence. He does not mean that the patients are necessarily idiots, but there is an impairment of intelligence. You can readily understand that if you have a lesion in Wernicke's area, preventing you from understanding what you read, or from communicating with other people by writing and speaking, your intelligence is sure to be impaired. Marie has shown that supposing a patient seems to understand such a simple order as "Put out your tongue," or "Hold up your hand," you are apt to think he understands what is said, but if you give him an order consisting of three or four items, he will fail to carry them all out. If you tell him to tear a piece of paper into three, put one at the end of the room, another in a book, and bring the third one back, he may do the first all right, but he will not remember the others. So if you talk quickly to such a patient and give him a complex order, even in cases where the lesion is limited to this area, he will show very considerable lack of comprehension.

Although Marie has not altogether proved his case, he undoubtedly has brought forward many aguments in favour of the view that we should not differentiate these centres so much as we have done hitherto, but look upon the whole as the complex phenomena of language, and that a lesion in any one part will affect all functions of speech, more or less, although unequally, according to the locality affected. But in every case there is defective intelligence, and in every case there has been an affection of Wernicke's area or of the fibres in the lenticular zone, and in a few cases the third frontal convolution has been free. So although, after the three days' debate, neither side succeeded in convincing the other, a great many points were cleared up, because the questions which were going to be discussed had been propounded many months before, and everyone present was asked to give what evidence he could bearing on the point. And considering the large amount of material they have in the Paris hospitals, if they were unable to produce evidence to conclusively support current book theories, it is clear we must reconsider our views.

An impartial examination of fourteen aphasics by Dercum, of Philadelphia, showed that he could not differentiate them into motor and sensory aphasias, as they all showed both defects, but in varying degrees. They all presented sensory elements. They all showed intellectual deficit when given elaborate orders, and failed to carry them out correctly, whether the orders were verbal or written.

The mental defect is lacunar and only consists of certain failures, and is not general.

In all there was some anarthria or defect of utterance as compared with a normal person.

Souques showed the brain of a woman with a lesion limited to the left first and second temporo-sphenoidal lobes and to the posterior part of the lenticular, with well-marked motor aphasia and agraphia, although Broca's convolution was normal.

I have here the brain of the patient who had aphasia; it was due to a lesion of the temporo-sphenoidal lobe, and it shows what has frequently led to error in these cases, namely, that if you take a single section you may conclude that the lesion is entirely sub-cortical. But if you cut a series of sections of the brain throughout, you will find that at some portion the cortex also is involved. Dejerène says that in future it is only by cutting serial sections and showing that the whole of the particular cortex is free from disease, as shown by Palweigert stain, that we shall be justified in saying that that cortex is not involved. By taking a single section you are very likely to be led into error.

The general conclusions amount to this:—

1. Aphasia, according to Marie, is due to a lesion in Wernicke's area. There is always defect of intelligence, and the comprehension of language is elaborated here, but it cannot be accurately subdivided up into areas with distinct functions. It is an intellectual and not a sensory centre.

2. A pure motor-aphasia is an anarthria due to inco-ordination of the muscles, and is due to a lesion in the neighbourhood of the lenticular

nucleus. His opponents insist a lesion in such region would produce a paralysis, and not an aphasia.

3. Complete aphasia (the old Broca's aphasia) is a combination of the two.

4. A clinical word-blindness may be due to a lesion of the fibres leading from Wernicke's area to the occipital region. It is associated with hemiopia, and is due to a lesion in the area supplied by the posterior cerebral artery.

5. Broca's convolution has nothing to do with aphasia. Dejerène would not agree to this, but argued that when Broca's convolution was unaffected the fibres leading from it were damaged.

6. All cortical lesions are almost invariably also subcortical (one case of infantile paralysis only to the contrary is on record).

7. The limits neither of Broca's convolution nor of Marie's lenticular zone have yet been accurately defined.

Dental Notes.

On Friday, February 19th, a meeting of the Dental Society was held in the Physiology Theatre. The minutes of the last meeting were read by Mr. Graham Poock, in the absence of Mr. Bull.

Casual communications were then shown by Mr. Shepherd. The first and second were specimens of an abnormal number of roots to various teeth. He then showed a specimen of necrosed alveolus taken from a child of three years.

Mr. Bradnam and Mr. Shepherd also showed cases of gemination.

Mr. Doubleday showed a case of fibrous epulis.

Mr. McDonald Watson then read a very interesting paper on "Pyorrhœa Alveolaris," and in the discussion which followed, the President, Mr. Bradnam, and Mr. F. N. Doubleday joined.

Papers by Guy's Men.

Badcock, J. H., M.R.C.S., L.R.C.P. Lond., L.D.S., Valedictory Address to the British Society for the study of Orthodontia.—*The Dental Record*, February, 1909.

Poulton, E. P., B.A. Oxon., and Hunt, G. H., B.A. Oxon. (with Mr. A. P. Dodds-Parker, M.A., F.R.C.S.). A Case of Excision of one Kidney with qualitative analysis of the Urine."—*Lancet*, February 6th.

Rowlands, R. P., M.S., F.R.C.S. A Clinical Lecture on the Importance of Thorough and Rational Examination of the Urinary Organs.—*The Clinical Journal*, 17th February, 1909.

Sheen, William, M.S., F.R.C.S. Some Considerations of the Treatment of the Displacement of the Abdominal Organs.—*The Clinical Journal*, 10th February, 1909.

An Experimental Feeding Trial in Relation to Epidemic Enteritis.

A paper read before the Guy's Hospital Physical Society by Dr. E. P. Minett, November 25th, 1908.*

Gentlemen,—The possibility of using a practically sterile infants' food in relation to infantile summer diarrhœa, or "epidemic enteritis," has been approached from many points of view—all or most of the methods used starting with cows' milk as their basis. Now as the incidence of this disease seems to be double, or practically so (11·5 as against 5·0), in large towns and crowded areas as compared with rural districts, it appeared probable that an experimental feeding of a number of infants living at their own homes in crowded and poverty-stricken districts such as Bermondsey or Southwark would be of value, both from a medical and bacteriological point of view.

The rate of infantile mortality is liable to considerable fluctuations, which are largely dependent on the increase or decrease of "epidemic enteritis" in any one year. The rate in this country furnishes no evidence of any continuous reduction, and the deaths under *one year* of age form roughly one-quarter of the total deaths, and of this quarter nearly 33⅓ per cent. occur during the first month of life, and nearly 50 per cent. die before reaching three months of age.

During the year 1904, there were in England and Wales 145 deaths of infants under one year of age to 1,000 births, well over 10 per cent., and of these 145 deaths, 71 occurred in the first three months of life and 30 in the second three months; the two chief causes being diarrhœa (32) and developmental defects and wasting (46).

Epidemiology.

The principal factors in the epidemiology of infantile diarrhœa seem to be:—

a. Density of Buildings.—In this connection Whitelegge calculates the death rate *per mille* in urban districts (1898 to 1902) at 11·5, as contrasted with 5·0 in rural districts, and gives the following figures:—

Mean annual diarrhœa mortality per 1,000 at ages under 5 years:—

In	6	counties with more than	4	acres per person	2·6
„	9	„ „	3 to 4	„ „	3·0
„	12	„ „	2 to 3	„ „	4·2
„	11	„ „	1 to 2	„ „	4·8

b. Lack of ventilation and light, filthy surroundings.

c. Foul air, not perhaps so much from sewage *per se*, as from accumulations of organic and other refuse so often inefficiently cleared away from courts and alleys. Nash, in dealing with the incidence of the disease in Southend-on-Sea, has shown, by means of a spot map of the district surrounding a disused brickfield used for shooting refuse of various descriptions, that flies may play a prominent

*A Summary of this paper appeared in the *British Medical Journal* for February 13th, 1909.

part by carrying infection from the refuse heaps into the houses, and thus causing the infection of food, milk, etc., which is so frequently left about uncovered.

d. Soil and temperature are factors the influence of which is beyond the scope of the present communication, but it has been shown conclusively that the curve of epidemic enteritis follows closely the rise of atmospheric temperature, and more closely still the rise in temperature of the soil, for infantile diarrhœa is at its highest with an average weekly temperature of 60° F., and when the four-foot earth thermometer rises above 56° F.

Newsholme, recently reviewing the whole question, concluded that diarrhœa is more closely related to the absence of rainfall than to mean temperature of air; and Ballard states that in the diarrhœa season, calm promotes, and high winds tend to lessen, the case incidence.

Then, too, the position of the ground water appears to have some bearing on the case incidence, a high ground water and cool season giving rise to comparatively few cases, whereas low ground water and a hot season seem to be extremely favourable to "epidemic enteritis" amongst children, which is in addition largely influenced no doubt by the presence or absence of dust particles from the soil acting as aerial carriers of the causal bacteria.

e. Water has been fully dealt with as a cause of diarrhœa elsewhere, the chief points being contamination with sewage, and occasionally excessive hardness (over 8° for instance), especially "permanent" hardness.

f. Food supply, which, although I have placed it last, is the most important of all, for 80 per cent. of the case mortality occurs in children under two years of age, and practically always amongst bottle-fed infants, breast-fed infants being remarkably free. It would, therefore, seem that as milk in various forms is the staple diet of bottle-fed children at and under that age, here we may have the probable explanation of the incidence of the disease.

"Bottle-Feeding."

The various methods of "bottle-feeding" in vogue amongst the poorer classes may be summarised as under:—

Raw cow's milk is diluted to half with water, and sweetened with sugar—cream being added to make up the fat. Now when it is remembered that raw milk, especially if carelessly collected, delivered, and stored, is often as bad bacteriologically as sewage itself, the risk is obvious, not to mention the fact that the organisms of diphtheria and scarlet fever, together with streptococcus, staphylococcus and B. enteritidis of Gaertner, have often been demonstrated as present. B. enteritidis sporogenes is occasionally present in cows' milk, and micrococcus melitensis in goats' milk has been shown to to be a cause of Malta fever, and a host of other organisms have often proved to be present in such an eminently suitable medium. Also, with regard to the bacillus of tuberculosis, the report of the Royal Commission on Tuberculosis is all in favour of its causal relation to tabes mesenterica, scrofula, etc. Again, although heating to 75° C. it will destroy any vegetative forms of organisms present, it will not destroy the spores of B. enteritidis sporogenes, and these, escaping, are capable of developing into the vegetative or active form as soon as the environmental conditions are suitable again.

The whey method of preparing humanised milk I will not discuss, as it is much too complicated and expensive for the poor, although the results are good where it can be done efficiently.

The citrate method has been very favourably reported on by Dr. Frederick Langmead in the *Clinical Journal*, from trials at Paddington, and seems to be effective, especially as the milk is also sterilised; but unless this is done, it is still open to objection, on account of the organisms present, dirty surroundings, the possibility of infection by flies, or escaping spore-bearing organisms, etc., besides the necessity of having to rely on the mother always adding the exact quantity of sod. citrate solution, and the fact that domestic teaspoons for instance amongst the poor vary tremendously, often ranging in capacity from one up to three drams. But this method certainly seems to give good results as regards improvement in weight and condition, and it would be interesting to hear how it works out with respect to "epidemic enteritis," or summer diarrhœa, amongst the poorer classes.

With regard to the various milks, such as asses', mares', goats', ewes', etc., I do not propose to go into their composition and possibilities, as they are all open to two objections, which practically preclude their use for children of the poorer classes, namely, their cost, which is prohibitive, and the impossibility of obtaining the same in sufficient quantities to be of any practical use; even if their composition approximated anything like closely to that of human milk—which it does not—they would still be just as liable to infection in transit and storage as cows' milk is at present, and therefore must be put out of court, and cows' milk alone considered as the only easily accessible substitute for mother's milk obtainable by the poorer classes, except condensed milk, of which there are many varieties on the market, some of them fairly good and some very bad. Most of them contain far too much sugar—often not lactose at all, but added cane or beet sugars—and too little fat, a large proportion either being abstracted before manufacture, or the condensed milk being manufactured from skimmed or separated milk; and the point about them is that even when the word "skimmed" or "separated" is placed prominently on the label, the public do not realise that it means a large proportion of the very necessary fat has been abstracted. Besides, from the point of view of fly-borne infection, nothing attracts flies, etc., more than an open tin of condensed milk standing about, which is such a common sight in the dwellings of the poor. So that although admittedly weak infants will often retain and make fair progress on condensed milk when cows' milk is rejected, still its use must often be a grave source of danger, because once the tin is opened it cannot again be efficiently and easily closed to prevent contamination.

METHODS OF STERILISATION.

The Commissioners on Tuberculosis were of opinion that the innocence of tuberculous milk which had been raised to nearly boiling point had not been entirely demonstrated to their satisfaction, and they stated that when the tuberculous material in milk was raised to a temperature insufficient for the complete destruction of the bacilli, it was possible to obtain from highly virulent tuberculous material an attenuated form of tuberculous virus so tardy in its operation in test animals as to simulate the slower forms of consumption seen in the human subject, *e.g.*, scrofulous glands, etc., and therefore highly suggestive of widely prevalent forms of tuberculosis having an origin in milk.

The evidence seems all in favour of tuberculosis, especially the variety tabes mesenterica, being transmitted to human beings from animals; again, it is stated by veterinary authorities that stall-fed cows are very susceptible to tuberculosis, the percentage of infection having been stated to be as high as 25 per cent. of animals.

On the other hand, the sale of tuberculous meat after treatment with superheated steam—as practised in the Friebanks of Germany—seems satisfactory, and this is no doubt due to the thorough sterilisation of the infected meat and the efficiency of inspection which is only possible in public abattoirs such as exist in Germany.

So far as is at present known, the milk of tuberculous cows rarely contains the bacillus, unless there is a deposit of tubercles in the glands of the udder. But it must be remembered that it is the custom for most dairymen to mix the milk of many cows, and as a matter of fact the bacilli have been found by many observers in from 10 to 20 per cent. of the town dairy samples examined by them. The inference as to its suitability as an infants' food is obvious; besides, cream is out of the question with poor people as being too expensive. Boiling is effective as a means of sterilisation, but seriously alters the chemical properties of the milk, especially the Lact-albumin and Globulin; while the trouble of constantly boiling small quantities of milk for each feed for every two hours leads too often to the boiling of a large quantity at once, which is then left exposed to the air, flies, etc., until used up; hence the possibility of a fresh infection. Pasteurisation, *i.e.*, heating the milk to a temperature of 75 per cent. for twenty minutes, afterwards rapidly cooling to 10° C. and straining, is undoubtedly very effective, as will be shown later; but how can a poor mother, perhaps having to work at a factory as well as look after her family, be expected to know when the milk has reached 75° C. and *keep it there* for twenty minutes, and be able to keep it sterile once she has done so?

METHOD ADOPTED IN THE EXPERIMENTS.

It is with the object of collecting data relating to the food supply that some experiments were conducted on infants collected from various sources, such as the Out-patient Department at Guy's Hospital, the Royal Waterloo Hospital for Children, and the Surrey Dispensary. Selected infants are provided gratis with special food to be used in their own homes, are brought up to the dispensary weekly, weighed, and medically inspected, while charts of their weight, with notes as to the occurrence of diarrhœa, rickets, scurvy, etc., are carefully compiled.

The method employed is by using dried milk, of which there are several varieties in the market, prepared principally by German, French and English firms, the last named drawing their supplies from a particularly pure and carefully supervised source in New Zealand. Briefly, the method used is this:—The cows are first inspected with reference to disease, *e.g.*, tuberculosis, etc., by a veterinary officer. A contract is then made with the farmer, who undertakes to deliver the milk at the factory within three hours of milking. On receipt it is cooled by running over a cooler which has water at 50° F. running through it. Meanwhile the cans in which the milk was delivered are placed in a trough full of lime water, afterwards placed over a jet of cold water, then over superheated steam, and finally again rinsed with a jet of cold water before being returned to the farmer. After cooling at the factory a sample of the milk is estimated by Babcock's process (which is similar to the Leffmann Beam process) for butter fat, and farmers are paid in New Zealand on the basis of the percentage of butter fat present in the sample. Next the cooled milk is filtered by pressure through a filter composed of four prepared pieces of filter paper and specially prepared cloth, to remove any dirt and filth present. I am informed that the amount of filth removed by this filtering is surprising. After the mixed product has been standardised to secure a product as nearly constant in composition as possible, the moisture is abstracted by allowing the milk to fall in a constant thin stream over revolving cylinders heated by steam to a temperature of 240° F., the milk being in contact with the cylinders about two seconds. The dry powder is then scraped off mechanically and at at once packed in hermetically-sealed tins for export.

Dr. Klein, describing several of his experiments relating to dried milk, says:—"Notwithstanding the prodigiously large number of specific organisms with which the sample had been infected by me, none of them could be detected after the milk had been submitted to the drying process."

As regards the above, I will give the results of bacteriological examination of the same, obtained in the laboratories at Guy's Hospital by myself and my colleague Mr. Leeming. But first as to their chemical composition, and comparison with human and other milks used in feeding infants.

The method I employ, and which was found to be the easiest way of dealing with it, both from the distribution and feeding points of view, is as follows:—Each child, when first taken under treatment, is thoroughly examined with a view to rickets, scurvy, marasmus, etc., and a card and chart made out. A sealed tin of dried milk is given to the mother with instructions for feeding, printed so that reference can be made frequently by the mother.

A small measure, holding roughly one drachm, is given with each tin of food, also two bottles, and teats of the variety which will fit over the neck of any bottle.

According to the infant's age, the mother is instructed to put so many measures of dried milk into the bottle, previously rinsed out with hot water, and fill up to a mark on the bottle which we make with a file. This obviates all the bother, from the mother's point of view, of weighing the powder up into quantities for a feed, and also measuring the water. Roughly, 1 in 7 of water is the strength of food usually used, and a table as under is provided for the nurse who distributes the food, for her guidance in marking the feeds on the card.

Age.	Intervals of feeding (day).	No. of night feeds.	Amount of water (boiling).	Dried milk. Amount.
1 wk.	2 hourly	2	1 oz. to 1½ ozs.	1 measure
2 to 3 wks.	2 „	2	2½ ozs.	2 „
4 to 5 „	2 „	1	3 „	2 to 2½
6 to 13 „	2½ „	1	4 „	3 to 3½

and so on in the above ratio, but no fixed quantity is given, the amounts being varied according to the results of observations by the nurse and medical officer, each child being prescribed for separately, and the food modified as occasion demands. Some of the fat separates out and floats on the surface, necessitating shaking the bottle occasionally during a feed.

Printed instructions are given and insisted on by nurses as to scalding bottles, teats, etc., also as to making each feed freshly and not keeping from one feeding time to another.

Results of the Feeding Trial.

The results so far have been most gratifying. Most of the babies show a weekly increase in weight ranging from 4 ounces to 6 ounces, and sometimes more. I prescribe in addition a small quantity of sweetened orange or lemon juice to be given daily with a spoon after one of the feeds in place of sodium citrate, but when fruit juice is not obtainable I shall try sodium citrate in chloroform water, as recommended by Dr. Langmead.

The worst drawback we have encountered so far is the fact that the mothers will not bring the babies up regularly, even though the food is supplied gratis. They often miss several weeks without coming in for a further supply, and frequently drop off altogether after a few weeks only, just as the child has begun to make progress.

Analysis of Dried Milk.

With regard to the chemical composition, I am at present using two varieties of the dried milk, one—A—being known as half cream, and the other—B—being known as full cream milk, the difference, of course, consisting mainly in the proportion of fat present. As the experiment has only run for about eighteen or nineteen weeks I cannot say very definitely anything as to their respective values, but publish a report as to the incidence of diarrhœa amongst them, which is the special object aimed at.

The chemical composition of the two samples I am using are given below, together with those of a dilution of 1 to 7 of water, cows' milk, and human milk, for the sake of easy reference.

The cost, if the mother had to purchase the food, works out from 2d. to 3d. per day.

	Diluted with water 1 to 7.	Cows' milk.	Human milk.
A. Dry powder—			
Milk proteids 28·08 ...	3·5	3·7	1·5
Milk sugar 48·47 ...	6·05	4·7	6·8
Butter fat 14·60 ...	1·8	3·7	3·3
Salts 5·55	·7	·7	·2
Moisture 3·30	87·5	87·2	88·2
Total solids ...	12·5	12·8	11·8
B, Dry powder—			
Milk proteids 22·2 ...	2·7	3·7	1·5
Milk sugar 41·0 ...	5·1	4·7	6·8
Butter fat 27·4 ...	3·4	3·7	3·3
Salts 5·9	·7	·7	·2
Moisture 3·5	88·1	87·2	88·2
Total solids ...	11·9	12·8	11·8

As will be seen by the tables, dried milk diluted to 1 part in 8 with water nearly approximates to human milk as regards fats, and proteids and sugars in a lesser degree; and when it is remembered that ordinary cows' milk may vary considerably in its composition as given under, the advantages of having a definite chemical composition for feeding purposes are very great.

Normal Milk Variations (Bell).

	Min.	Max.	
Fatty solids ...	1·9	6·8 per cent.	Total solids variations 10·3 to 16·2.
Non-fatty solids	8	11·2 „	
Mineral ash ...	0·6	0·8 „	
Cream ...	2	26 „	

Specific gravity 1026 to 1036.

The acidity of samples examined were as under:—

Dried milk A 10% sol. 100 cc. = 6·8 cc. $\frac{N}{10}$ NaHO sol.
*Dried milk B „ „ 100 cc. = 4·4 cc. „ „ „
Ordinary milk „ „ 100 cc. = 17 to 20 „ „

* The ash after incineration gave no effervescence with H.cl.

Note that + 10, or ten degrees of acidity by Eyre's scale, is a most suitable reaction for a medium intended for the growth of bacteria under artificial (laboratory) conditions.

Energy Value of Dried Milk.

With regard to the feeding value of dried milk, perhaps it would be interesting to glance at its calorific value as represented by the proteid, carbohydrate and hydrocarbon constituents. Assuming that they are of the same calorific value as in ordinary food stuffs, they would work out as under:—

1 oz. dry albumin represents 173 foot tons potential energy.

1 oz. fat (butyrate of glyceryl, etc.), 378 foot tons potential energy.

1 oz. carbohydrate (lactose), 135 foot tons potential energy.

Take for instance a child weighing 9 or 10 lbs. having 2 oz. feeds every two hours during the day, say 16 hours, making eight feeds, total of 16 oz., and two feeds at night, 4 oz., making a total of 20 oz. This should contain roughly in ounces :—

Sample A.—Proteid ·7 oz. Carbohydrate 1·21 oz. Fat ·36 oz. For half-cream milk.

Sample B.—Proteid ·54 oz. Carbohydrate 1·05 oz. Fat ·68 oz. For full cream milk.

The potential energy of B would then work out roughly as follows in foot tons :—

Proteid 93·48, carbohydrate 141·7, fat 257·04—making a total of 492·16 foot tons available for a child only one week old, whereas, weight for weight, as compared with a man doing fairly hard work, it should only require 200 to 266 foot tons or $\frac{1}{15}$th of 3,000 or 4,000 foot tons, according to whether Voit's scale or a more liberal one is taken. The Chittenden scale allows only 2,000 to 2,500 foot tons for a man say 150 lbs. in weight. So that on this basis a very liberal margin of nearly 200 foot tons per diem is allowed to the baby for waste, even on the higher basis of feeding necessary for a labourer or an athlete, and allowing for the fact that a baby requires much more in proportion to its weight and size than a man.

With regard to the curd produced by the dried milk, as cows' milk consists of ordinarily roughly $\frac{1}{10}$th lactalbumen and $\frac{9}{10}$ths caseinogen in total proteids, and human milk $\frac{2}{3}$rds lactalbumin and $\frac{1}{3}$rd caseinogen, it would be expected that the curds formed by dried milk would partake of the nature of those of cows' milk, but this is not so, the former curds being quite small. I have not observed any large curds in fæces of several children examined, and insert later the effect of the rennet ferment in solutions of these milks. Probaby the citric acid in the orange and other fruit juices used accounts for the absence of large curds in the fæces examined.

Bacteriology of Epidemic Diarrhœa.

With regard to the bacteriology of infantile diarrhœa in relation to milk feeding, the following amœbæ and bacteria have been isolated in fæces of children suffering from diarrhœa, and perhaps it would not be out of place to briefly recall their actions on milk under suitable conditions, *i.e.*, at 37° C., such as we imagine would obtain in the intestines of a living individual.

Paramœcium coli is associated with epidemic diarrhœa, sarconomas intestinalis with mucous discharges from children, and amœba coli is said to be present in normal fæces, but as very little work has been done on these amœbæ, they cannot as certainly be associated with infantile diarrhœa as the following bacteria, all of which have been isolated in connection with it, besides some of the moulds—such as oidium albicans—which if present in milk are a cause of thrush.

Lactic acid fermentation is a well-known cause of sickness and diarrhœa, and less frequently also the fungi and moulds, such as aspergillus glaucus, penicillium glaucum, and mucor mucedo, have been known to cause severe gastric irritation.

Bacillus coli acts in milk to form acid, gas, and firm clot; it also ferments lactose, forming acid and gas. Bacillus dysenteriæ turns litmus milk acid, later alkaline, and does not ferment lactose.

Bacillus enteritidis of Gaertner turns litmus milk usually alkaline to negative, and does not affect lactose, but different strains act differently.

Bacillus enteritidis sporogenes, cultivated anærobically in Buchner's tubes with litmus milk at 37° C. for twenty-four hours, gives excess of gas, and separation into curds and whey, the latter of which is acid. The large broken-up clots are very characteristic, and smell of butyric acid. This is a spore-bearing organism, and as the spores are not destroyed by heating in a benzol bath at 80° C. for twenty minutes, they would not be destroyed by pasteurisation, but apparently they are by dried milk process.

Bacillus butyricus of Botkin acts like the above, but is not so pathogenic to animals. It was isolated by Klein from milk supplied to patients suffering from diarrhœa in 1895, and ferments lactose, forming acid and gas.

Morgan's No. 1 bacillus with litmus milk slowly gives alkaline reaction, does not change lactose, but with galactose forms acid and gas. It produces fatal diarrhœa in rabbits, rats, and monkeys fed on food contaminated with cultures of it. Streptococcus pyogenes and staphylococci of various varieties are often present in milk; the latter especially will form both acid, gas, and clot in litmus milk. The other organisms found in milk, such as bacillus diphtheriæ, bacillus typhosus, etc., have already been noted.

Looking at the foregoing list of organisms and their actions on milk—the staple diet of infants—it is at least feasible to assume that, presuming these are not present in the intestine (except bacillus coli, which is always present), the use of a sterile food cannot but be an advantage. Assuming the absolute necessity of symbiosis, as held by many authorities, there are plenty of organisms having their normal habitat in the intestines to carry on symbiosis without the introduction of fresh ones highly pathogenic in nature to the unfortunate infant, which is unable to obtain its normal and proper sterile mother's milk.

Appended is the bacteriological analysis of dried milk B., also of a sample of ordinary milk after pasteurisation for twenty minutes at 75° C., and straining through four thicknesses of butter muslin into a sterile flask. Unfortunately, as one sample of dried milk was sent to me in a cask, and not in sealed tins, no bacteriological analysis was possible, but a solution smeared on agar tubes, and incubated at 37° C. for forty-eight hours gave no growth.

Bacteriological Analysis of Sample B. Dried Milk.

Ten grams. were weighed into a sterile flask and made up to 100 c.c. with sterile water and then used for analysis.

Organisms growing on gelatine plates and capable of multiplying at 20° C. after 6 days.

200 per cc.

Organisms on agar plates cultivated at 37° C.

0 per cc.

Microbes of indication in 1 cc. :—

Bacillus coli communis	absent.
Bacillus enteritis Gærtner	"
Bacillus enteritis sporogenes	"
Tubercle bacilli	"
Diphtheria bacilli	"
Streptococci fæcalis	"

A few moulds developed on the plates, but were probably only indicative of aerial contamination.

Fifty c.c. were centrifugalised in high speed machine, and both cream and deposit examined microscopically and culturally for organisms, but none were detected. A few leucocytes only were observed in both the cream and deposit.

Bacteriological Analysis of Pasteurised Milk.

Organisms growing on gelatine plates at 20° C.

70,000 per cc.

Organisms growing on agar plates at 37° C.

800 per cc.

Cream and deposit after centrifugalisiug examined microscopically :—

Cream	Streptococci Staphylococci Epithelial and pus cells	present.
Deposit	Streptococci Staphylococci Epithelial and pus cells	present.

Cultures on blood serum of cream and deposit after centrifugalising showed the presence of a large gram-positive spore-bearing bacillus, probably bacillus subtilis only (not inoculated or investigated further).

Specific examination after pasteurisation.

Bacillus coli absent from	1 c.c.
Klebs-Löffler bacillus absent from	1 c.c.
Bacillus enteritis of Gaertner absent from ...	1 c.c.

No tubercle bacilli detected in cream or deposit.

No diphtheria ,, ,, ,, ,,

Experiments conducted with rennet as regards the clotting capacity gave the following results, which, in view of the statement by the manufacturers that the dried milk is not indigestible, is most interesting :—

A sample of boiled cows' milk with rennet gave thick solid curd.

A sample of ordinary unboiled cows' milk gave large heavy curds.

A sample of dried milk gave very small curds.

Appended is a summary of results obtained, but, as was mentioned previously, we suffered from the drawback that the mothers often would not take the trouble to come up more than a few times and wait for the babies to be weighed ; and it must be pointed out that none of them were normal healthy babies, but children who had been brought up to Out-patients from various causes, principally wasting, broncho-pneumonia, diarrhœa, etc., and therefore not by any means normal.

Summary.

The trial lasted nineteen weeks altogether, during which 38 infants were supplied with the food gratis, and fed solely on it.

The length of time during which the children were under observation varied, some being brought up regularly every week for the whole time, and these did the best ; on the other hand, others were only brought up for a week or two, and then were not seen again owing to the slackness of the mothers, or, perhaps, because they were too busy to spare the time to bring the children to the dispensary. During the whole period we had five cases of diarrhœa, but as two came to us already suffering from the complaint, and two contracted it at times when they were not being fed by us—that is to say, they ran out of food, and instead of coming up at once for a fresh supply the mother fed the infants for about a week on such substitutes as boiled bread and water, condensed milk, etc.—it is only fair to exclude these also. The only case I cannot account for is that of a child who was fed on dried milk solely from start to finish, and had an attack of diarrhœa lasting two days during that time. A careful bacteriological analysis of the fæces failed to demonstrate the presence of any organisms usually associated with epidemic enteritis; I am of the opinion that the attack may have been purely accidental, especially as it lasted such a short time, and the child did not lose more than four ounces in weight during the attack.

In conclusion, I am of opinion that dried milk is deserving of further trial during the summer months when epidemic enteritis is so prevalent, especially amongst the poorer classes, and, if prepared as indicated, it is a food which if not absolutely sterile is very nearly so.

I do not think that the point aimed at was altogether attained, namely, that if a perfectly sterile food prepared with boiling water, etc., is used under as nearly aseptic conditions as is possible, in the homes of the poorer class, epidemic enteritis can definitely be avoided.

I desire to acknowledge my indebtedness to Dr. Eyre for his kind supervision and reading of the proof sheets, to Messrs. Leeming and Ryffel, my colleagues, for kind assistance ; to the nurses at the dispensary for weighing the babies weekly; to the proprietors of the dried milk who so kindly supplied me with the milk for the feeding experiments, and particulars of manufacture ; and to various standard works of reference.

Change of Address.

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Ralph Thompson, from 4, St. Thomas' Street, to 30, Weymouth Street, Portland Place, W. Telephone : Paddington 2146.

Sport.

Rugby Football.

LONDON v. GUY'S.

Inter-Hospital Senior Cup.—Semi-Final.

This match was played at Richmond, on Wednesday, February 24th, on a ground decidedly on the hard side, altogether favourable for a fast game, and that was provided, with a vengeance. Punctually at three o'clock the large gathering of students and general public rose, and gave a great welcome to the Prince of Wales, who honoured the match with his presence, and who was received by Dr. Munro, of London, Dr. Frederick Taylor, of Guy's, and the Hon. Sydney Holland. The Prince immediately took his place in the Royal box, and the two captains, Messrs. Stringer and McHaffey, proceeded thither, and were presented to His Royal Highness. Directly after this interesting episode the rival teams lined up in front of the Prince, and gave him three rousing cheers.

Then commenced a tremendous battle. Pace, vigour, and staying power were soon in evidence, and kept up at a high pitch till the end of two gruelling "forties." Within five minutes of the start Stringer sent up a lofty punt; Batchelor, on his own line, missed the ball, but Stringer was on it, and, in a flash, over the line, putting Guy's 3 points up thus early. Stokes failed at an awkward kick. Guy's were, therefore, at the very commencement, put on the best of terms with themselves, and they never looked back. Stranach soon got a nasty knock, but he kept going and put in some very valuable work, though in great pain throughout the rest of the play. London now worked down, but Stringer cleared well, though when the ball did get among the London backs they looked dangerous; most of the play, however, was among the forwards, but London kicked too hard, and Lacey easily and cleverly cleared. Frequent free kicks were given owing to over-keenness, which caused forwards to be frequently offside. Twice Palmer kicked for goal, but he was not successful. A shot by Adams, soon after, was very nearly so. With half-time approaching, Palmer made a big effort on the left, but Stokes had the pace of him and tackled him splendidly. Lloyd then made an unsuccessful drop at goal, and before long the sides crossed over, Guy's leading by 3 points.

On resuming, London pressed, the Guy's pack, for a time, slackened, and twice Guy's touched down. Next Lloyd and also Adams ran cleverly, but both held too long. Guy's were tackling tremendously, and all the backs, taking their cue from Lee and Jones, who were as steady and safe as possible, played most coolly, constantly driving London back with perfect kicks, two by Medlock being particularly good. Adams tried another drop, but it sailed wide. Then, from the drop-out, Guy's forwards revived, Roberts in particular doing sterling work, aided by Archer and Crook. Heeling smartly, the halves and "threes" passed, and Stokes was sent away, but, at the corner flag, Batchelor, Stokes, and the flag-staff plunged into touch. London replied; Palmer, getting a chance, was off, but Stokes and Lacey accounted for him. A long kick reached Batchelor, who ran and passed to Palmer. The latter hesitated, and Hoby smothered him. One or two close things on the Guy's line caused anxiety, but Saner repeatedly gave to Jones, Lee, or Stringer, who cleared with an accurate kick. The end was fast approaching when the forwards, heeling-out smartly, both halves and centres handled, and again Stokes was away. Palmer was near him, but Stokes left him standing, and, clearing all opposition, grounded behind the posts, and kicked the goal himself. The scene was tremendous; hats, sticks, and handkerchiefs were in the air, and with no-side going almost directly after, Guy's once again had triumphed over their old rivals.

Guy's supporters streamed across the field at the close of play, and the afternoon ended with cheers for the Prince, cheers for the victors, and by the carrying in triumph from the field of Stringer, Stokes, and other prominent members of the team.

Both sides were at full strength, except that Monteith could not play for London. In his place Chapman, the Cambridge blue, was called upon. Final score: Guy's, 8 points; London, nil. Teams:—

London.—T. B. Batchelor (back); A. C. Palmer, A. A. Adams, T. P. Lloyd, D. Macpherson (three-quarters); A. S. Heale, A. B. Lindsay (halves); J. McHaffey, E. MacEwen, W. Kennedy, G. Chapman, S. R. Harrison, P. L. Foote, W. C. Hodges, L. W. Sharpe (forwards).

Guy's.—G. E. W. Lacey (back); A. L. Stokes, H. Lee, J. P. Jones, L. B. Stringer (three-quarters); J. G. Saner, A. H. Medlock (halves); H. Archer, H. R. Mullins, W. E. Williams, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach (forwards).

Remarks are unnecessary. We need only give the team our heartiest congratulations. All fulfilled their respective parts magnificently.

Association Football.

2nd XI. v. LONDON DEVONIANS.

Surrey Junior Competition.—Semi-Final Round.

On February 20th we qualified for the final by beating the London Devonians, 4—0.

The game was played at Carshalton. Guy's won the toss and started with their backs to a strong sun. Throughout the first half we had the better of the exchanges, but failed to score, Harrison once having bad luck in just missing the net. After change of ends the forwards showed their true cup-tie form, and Wain scored twice from centres from the left wing. Soon after, Jones scored, the Devonian back having failed to clear, and just before time Wain got a fourth goal, again from a centre from the left. Team:—

Guy's.—H. C. Rook (goal); W. Johnson, J. T. Keer (backs); A. F. Camp, J. A. Edmond, C. W. Greene (half-backs); D. A. Mitchell, T. L. Jones, H. Harrison, D. Wain, C. E. Rice (forwards).

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

March.

Sat. 20. 2nd XI. v. East London College (Away).
Meeting of Debating Society, 8 p.m. "That in the opinion of this House the Preliminary Science subjects are given undue prominence in the Medical Curriculum." (Dr. Spriggs in the chair.)

Wed. 24. Debating Society's Dinner, College Dining-room, 7 p.m. (Dr. Savage in the chair.)

Thur. 25. Messrs. Symonds and Steward's Take-in (Messrs. Sanford and Dean).

Mon. 29. Residents' Going-off Dinner.

April.

Thur. 1. Messrs. Lane and Fagge's Take-in (Messrs. Leeming and Lee).

Passim.

THE Passimist is in a difficult position. We have to record a piece of news which, in the first place, is no news to the majority of our readers, and, in the second place, has to be recorded in different phrases from those employed by our predecessors on eleven previous occasions. For the twelfth time Guy's has won the Inter-Hospitals Rugger Cup. Will the bald statement convey all that is necessary, or would it be better to use the catechism style adopted by some text-book writers? Thus—Q. "What is this Cup of which we hear so much?" A. "It is the challenge trophy competed for by the hospitals of London." Q. "Kindly explain a little more fully." A. "I will do so." (He does so.) Q. "Who, then, has won the Cup in the present year?" A. "Guy's. Guy-uy-uy-uy's." Q. "Excuse me, when and where was this match played?" A. "At Richmond, on Tuesday last." Q. "Were any persons of note present?" A. "Yes, Prince Francis of Teck honoured the match with his presence." Q. "Give a short account of the jubilations (if any) which followed the victory for Guy's." A. "....."

SERIOUSLY, we can only congratulate our team and Mr. Stringer on having regained the Cup, which there is no doubt they well deserved to do, but even in football a man does not always get his deserts. The final match on Tuesday last was in many ways disappointing. Its result was always practically a foregone conclusion, and it must be admitted that our team, especially in the first half of the game, did not do itself justice. A much larger difference in the score would have more nearly represented the disparity between the two sides, but

in this connection we should like to congratulate the Middlesex men on the plucky and sportsmanlike fight which they put up against hopeless odds. There is one innovation which is worthy of note. The two teams dined together on the evening of the match, with Mr. George Turner, President of the United Hospitals' Club, in the chair.

Pfeiffer's bacillus, or a near relative, has been busy in our midst lately, and, just as a lay paper stated, apparently with some surprise, that the epidemic of influenza had attacked all ranks to the same degree—dukes suffering equally with baronets—so at the hospital it has been no respecter of persons. If we were not ourselves, but a lay contemporary, we should devote a page of pictures to the epidemic. There would be a photograph of an attractive young lady just about to sneeze, and inset a picture of Pfeiffer's bacilli magnified a million times, and a portrait of Dr. Saleeby or Sir James Crichton Browne, or any photograph that happened to come to hand. Around the page would be a design more imaginative than artistic, and at the bottom an encouraging little paragraph about the Black Death. But, alas, we are ourselves (so far as the dread bacilli will permit), and are debarred from these giddy heights of modern journalism.

The last meeting of the Debating Society for the present session is to be held this evening under the chairmanship of Dr. Spriggs, who still takes an active interest in the society. The debate is to deal with the thorny subject of medical education, and it will be moved, "That in the opinion of this House the preliminary science subjects are given undue prominence in the Medical Curriculum." The strong support of all men who have been ploughed in the "First Conjoint" is expected, but in addition there are probably many senior men who look back on their earlier years (of medical education) and think that those years might have been better spent. The whole subject gives scope for keen discussion, for it is very controversial, very topical, and affects us all very closely.

The Debating Society closes its session on Wednesday, March 24th, with the Annual Dinner, which is to be held at 7 p.m. in the College Dining Room. Dr. Savage will be in the chair, and Dr. Shaw has kindly promised to attend and speak on "Lay views of the Profession." Tickets, price 3s. each, may be obtained from the secretaries or any member of the committee.

The last meeting of the Physical Society for this session was held on Wednesday, 17th inst., in the College. Mr. Golding-Bird was in the chair, and twenty-seven members were present. The Chairman announced; (1) That Mr. P. P. Laidlaw had been elected Honorary Secretary in place of Dr. Nicholson who was retiring; (2) that the following gentlemen had been elected as Presidents of the Society: Messrs. Wheeler, V. Townrow, H. Hunt, A. H. Crook, C. A. Basker, H. E. Perkins, and A. H. Todd; (3) That the Society's Prize for the best paper had been awarded to Mr. E. P. Minett, and that for showing the best specimens of scientific interest to Mr. Penny.

The Chairman then declared that the Motto "Nil Desperandum" had been awarded the Treasurer's Prize. Mr. Stott (whose motto this was) then read his paper on "Present day Treatment of Syphilis, its special value in Prophylaxis, and in the Prevention of its Recurrence." It was an exhaustive and most interesting paper, dealing with all the methods of administering drugs, and with the merits of mercury and of arsenic in various forms. The Chairman opened the discussion by congratulating the reader on his paper; he commented on several of the points in the paper and concluded by raising the question of making syphilis a notifiable disease. Considerable discussion followed. A hearty vote of thanks was passed to Mr. Golding-Bird for taking the Chair, and the meeting adjourned for coffee at 10 p.m.

His Majesty King George of Greece has conferred the Decoration of Knight of the Royal Order of the Saviour on Dr. H. Stanley Turner, in a Royal Decree dated January 7th, 1909.

So recently as our last issue we had occasion to chronicle a fire occurring in premises close to the hospital, and now we have to add that the deadly element has during the present week wrought damage actually within our gates. Early last Wednesday morning fire broke out, from some unknown cause, in a workshop underneath the Eye wards in the medical buildings. The underground passage, lift shafts, and the wards above were rapidly filled with smoke, and the risk at one time seemed to be very serious. Fortunately Mr. Saltmarsh, who acts as the captain of our hospital fire brigade, was about the place. "He gathered his men, to the number of ten" (as an evening paper has it, in a moment of unconscious poetry), and they were soon at work with the hose-pipes, and within a quarter of an hour had so far subdued the flames that the help of the outside fire brigade, when it arrived, was unnecessary. Meanwhile equally smart work was going on in the wards above. As a precautionary measure, the Nurse on duty and Night Sister conducted all the patients from the Eye wards to other parts of the hospital, and in a wonderfully short space of time the danger zone had been quite cleared of patients.

On looking round and sometimes finding empty fire buckets about the place, we have on occasion been inclined to wonder whether the hospital safeguards against fire were as efficient as they might be, and it is very gratifying to be reassured on this point by the prompt and decisive action of everyone concerned in the fire last Wednesday. The occurrence of three fires in or about the hospital in three months must have opened our eyes to the reality of the dangers involved. On two of these occasions the men from the College have been called out, but, as Mr. Henderson points out in a letter which we publish elsewhere, they had no knowledge of the situation or use of the various precautions against fire, nor any concerted plan of action, which in a case of emergency would inevitably have led to confusion worse confounded. We submit the suggestions of our correspondent to the careful consideration of our readers, and even should they not be found practicable, the letter will have done good service in calling attention to the grave menace of fire.

We quote from a local paper the following obituary notice of Dr. James Bisshopp:—

"It is with deep regret that we record the death of an old and greatly esteemed resident and medical practitioner of Tunbridge Wells, Dr. James Bisshopp, who passed away on Wednesday last, after a short illness, at the advanced age of 86. He was one of the oldest inhabitants of the town, in which he had practised for nearly forty years, winning the respect and esteem of all classes of townspeople, and being specially beloved by the poorer classes of the town, to whom by many acts of kindness he had endeared himself. The deceased gentleman was the youngest son of the late James Bisshopp, Esq., of West Burton Hall, near Arundel, and a member of a very old Sussex family, who for generations had lived under the Sussex Downs, another branch of the same family having their seat at Parham Park, near Pulborough, where in the ancient gallery of Parham House are still to be seen portraits of former generations of the Bisshopp family.

"The late Dr. Bisshopp settled in Tunbridge Wells nearly forty years ago, and it is only within the last ten years that he retired from active practice. He succeeded the late Dr. Trustram, living first at Bedford House, Mount Sion, and then at Buckingham House, Mount Ephraim, before taking up his residence for the last fifteen years with his son, Dr. Francis Bisshopp, at Parham House. His health had been gradually failing of late, and a slight attack of influenza a fortnight ago hastened his end. His memory will long be held in high esteem in the town in which he did so much excellent work."

Mr. Bryant, our Consulting Surgeon, who had known Mr. J. Bisshopp all his professional life, writes that they were fellow-students at Guy's Hospital from 1846, and both were members of the Guyite Club founded in 1850 and dissolved in 1907, Bisshopp, Bryant and Samuel Knaggs, of Huddersfield, being at that date the sole survivors of the club. Mr. Bisshopp was a great favourite with all his fellow-students, being naturally of a friendly nature and cheerful under all circumstances. His student career was a good one, and his success in life was equally satisfactory, for he knew his work well and gave confidence to all, whether rich or poor. His son, Dr. Francis Bisshopp, has inherited his father's nature, and it was a source of great pleasure to the father to see his son firmly established as his representative in the practice he had formed, and his many friends will miss him greatly.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants.—Messrs. D. Allan, H. O. Brookhouse, A. A. Greenwood, H. I. Janmahomed, H. R. Mullins, C. A. Wood.

Dressers in the Throat Department.—Messrs. H. L. Attwater, T. F. Brown, S. H. Browning, H. L. Duke, L. K. Edmeades, C. H. Mills.

Medical Ward Clerks.—Messrs. E. P. Poulton, A. L. Gardner, A. Stanley Roe (Dr. Hale White); H. G. B. Blackman, J. A. Edmond (Dr. Pitt); R. Stout, G. Y. Thomson (Sir Cooper Perry); B. T. Verver, E. Billing (Dr. Shaw); G. Alan Blake, A. H. Gool, C. D. Killpack, M. C. Wall, H. P. Warner, H. L. James, N. S. Carruthers, H. H. Davis, H. Daw, G. L. Preston, O. E. Williams, F. G. Lloyd, G. Marshall, A. H. Birks, G. W. M. Andrew, B. Blackwood, J. H. Campain, H. L. Griffiths, J. B. Hance, H. V. Leigh, A. Seabrooke, A. J. McNair, P. J. Monaghan.

Assistant Surgeons' Dressers.—Messrs. F. N. Doubleday, G. C. Lowe, J. Blechschmidt, R. Heaton, A. J. Fräders-dorff (Mr. Steward); E. G. Schlesinger, G. T. Mullally, J. A. Delmege, A. C. Jepson, C. M. Ryley (Mr. Fagge); H. W. Barber, H. T. Depree, G. R. Hind, J. M. Jarvie, W. P. Vicary (Mr. Rowlands); A. M. Bodkin, T. S. Sharpley, L. C. D. Irvine, A. Samuel, E. W. Blake (Mr. Turner).

Surgical Ward Clerks.—Messrs. R. S. de C. Bennett, L. Milton, P. Smith, J. L. Stewart, G. C. Covell, H. L. Hopkins, W. M. Langdon, T. E. Roberts, G. T. Foster-Smith, W. S. Lacey, B. R. Parmiter, A. Sandison.

Post-mortem Clerks.—Messrs. F. D. Saner, A. Stanley Roe, H. Gardiner (April 1st); D. A. Mitchell, R. P. Ballard, A. Neville Cox, F. S. Adams, H. G. Rice, K. T. Khong (May 16th).

Clerks in the Skin Department.—Messrs. R. Stout, G. Y. Thomson.

Nursing News.

Matron's Office.

Nurse Gill, Head Nurse in Lazarus, left the Hospital on January 2nd, having completed her three years' training, and Probationer Halden was appointed to succeed her as Head Nurse.

Nurse Pilcher, Head Nurse in Luke, left the Hospital on January 7th, on completion of her three years' training; Nurse Hancock, Head Nurse in Bright ward, was transferred to Luke, and Probationer E. Bell was appointed Head Nurse in Bright ward.

Nurse Maycock, Head Nurse in Dorcas ward, left the Hospital on January 29th, and Probationer Jarvis was appointed to succeed her as Head Nurse.

Nurse E. F. Jones, Head Nurse in Stephen ward, left the Hospital on completion of her three years' training; Nurse Jefferson, Head Nurse in the Theatres, was transferred to Stephen, and Probationer Gabriel was appointed Head Nurse in the Theatres.

Nurse Wulff, Head Nurse in Lydia ward, left the Hospital on January 26th, on completion of her training, and Probationer Collingwood was appointed to succeed her as Head Nurse.

Nurse Weber, Head Nurse in John, left the Hospital on January 29th, having completed her three years' training, and Probationer Irvine was appointed to succeed her as Head Nurse.

Nurse Hall, Head Nurse in Patience, left the Hospital on February 3rd, on completion of her three years' training, and Probationer Ekins was appointed to succeed her as Head Nurse.

Nurse Thomas, Head Nurse in Lydia, left the Hospital on February 19th, on completion of her three years' training, and Probationer McKitrick was appointed to succeed her as Head Nurse.

Nurse Kempff, Head Nurse in Lazarus, left the Hospital on February 20th, on completion of her three years' training, and Nurse La Touche was transferred to Lazarus as Head Nurse.

Nurse Ball, Head Nurse in Stephen, left the Hospital, on completion of her three years' training, on February 27th, and Probationer Hilliard was appointed to succeed her as Head Nurse.

Nurse B. Martin, Staff Nurse in the Surgery, left the Hospital on March 8th, and Nurse Miller was appointed to succeed her as Staff Nurse in the Surgery, and Probationer A. Lloyd was appointed Head Nurse in Bright ward.

At the Examination of the Incorporated Society of Trained Masseuses, held in February, the following were successful in passing:—Sister Hilda Vine, Nurses Beesley, M. Lloyd; Probationers Clifford, Ekins, Hepburn, Lumholtz, Kingzett, Marsh and Whittam. Probationer Kingzett passed with distinction, and takes the Raphael Medal for Massage.

Papers by Guy's Men.

Knaggs, R. Lawford, M.D., M.C. Cantab., F.R.C.S. Eng. Four Cases of Volvulus associated with Hernia. (Illustrated.)—*The Lancet*, March 6th, 1909.

Maylard, A. Ernest, M.B., B.S. Lond. Intestinal Obstruction Produced by an Enormously Distended Stomach.—*British Medical Journal*, March 13th, 1909.

Robinson, Gerald C. F., F.R.C.S. Eng. Hodgen's Splint in Private Practice.—*The Practitioner*, March, 1909.

Hodgkin's Disease and Allied Conditions.

A paper read before the Pupils' Physical Society by Mr. A. S. Morton Palmer.

Gentlemen,—I must preface my remarks with a plea for your indulgence. I have been called upon to take part in this discussion at such short notice that my contribution cannot but be inadequate. I will, however, do my best, if you will allow me, to refresh your memories as to the chief clinical features of Hodgkin's disease, hoping that you will regard this summary merely as introductory to the more valuable communication of Dr. Boycott.

Numerous titles have been appended to this disease, such as lymphadenoma, adenoid diseases, anæmia lymphatica (Wilks), lymphoma, adénie (Trousseau), pseudo-leuchæmia, and even lympho-sarcoma—confusion with which should always be avoided.

The definition given by Professor Osler runs thus:—"An affection characterised by progressive hyperplasia of the lymph glands with anæmia, and occasionally the development of secondary lymphoid growths in liver, spleen and other organs."

The bibliography of the disease teems with names familiar to Guy's men. In 1832, Hodgkin published, in the Transactions of the Medico-Chirurgical Society, an article "On some morbid appearances of the absorbent glands and spleen." Though some of his cases were probably lardaceous or syphilitic in nature, some correspond to the disease called after his name. He describes great enlargement by simple hypertrophy of glands in the neck, axillæ, groins and mediastinum, conjoined with the presence of "opake" white, hard deposits in liver and spleen, which he believed to be an enlargement of pre-existing structures to resemble in appearance the diseased lymphatic glands. They are quite distinct, he says, from "cerebriform cancer." Shortly afterward, Bright, in an essay on abdominal tumours, described a similar case. In the Guy's Hospital Reports of 1856, Sir Samuel—then Dr.—Wilks described a form of enlargement of glands, associated with the presence of white masses in the spleen, liver and kidney, and pointed out that this was not due to a hypertrophy of the proper gland tissue, but to a new formation of fibro-nuclear tissue. In 1865 he republished the same jointly with fresh cases, under the title "Cases of enlargement of lymph glands and spleen, or Hodgkin's disease," thus acting as godfather to the disease. He also added to our knowledge by describing the deposits in the lungs, and laying stress on the absence of white corpuscles in excess from the blood.

Other Guy's contributors in recent times have been Drs. Pavy, Fredk. Taylor and Newton Pitt. The literature of the disease also contains the names of Virchow, Wunderlich, Billroth, Cohnheim, Trousseau, Cornil, Murchison and Sanderson (Trans. Path. Soc., 1870), and Sir W. Gowers, 1879.

Heredity appears to have no influence. Sex is important, the males in reported cases bearing the ratio to the females of three to one. The disease occurs at all ages, being most frequent in the third, fourth, and sixth decades of life. As regards the relation to other diseases, over half the cases enjoy previous good health. A close kinship to tuberculosis was asserted by Sternberg, who found evidence of tubercle in eight out of thirteen autopsies. Tubercle, however, is so ubiquitous that this is by no means conclusive proof of the truth of his views, which have little else to support them. Any relation to syphilis is likewise doubtful.

Local irritation, on the other hand, does appear to be a predisposing factor, a pre-existing focus being common, such as carious teeth, otorrhœa, tonsillitis. I remember one case in which I suspect this rôle was played by acne vulgaris.

I will touch briefly on the morbid anatomy of the disease, leaving its minute characters severely alone.

As to the affection of the lymph glands. Those most usually enlarged are the cervical glands, next in order of frequency being the axillary, the inguinal, retroperitoneal, bronchial, mediastinal, and mesenteric. Occasionally we find the epitrochlear or popliteal glands involved, or glands in unusual situations, as along the edge of the pectoral muscles.

The same set on both sides generally suffers, on one side generally to a greater extent than on the other, forming often a large and conspicuous mass, though individually the glands are rarely larger than a hen's egg, which they also imitate in shape. They are moveable and not fixed by periadenitis till late. They are soft or firm in consistence in proportion to the amount of fibrous tissue contained. Suppuration and caseation are infrequent. In the abdomen the chain of retroperitoneal glands running along the spine are the most commonly enlarged, the mesenteric glands being seldom much affected. The spleen is enlarged in 78 per cent. of the cases, though rarely weighing more than thirty ounces, or attaining to the size seen in spleno-medullary leuchæmia.

It presents a simple hypertrophy or else is studded with whitish patches resembling suet, which give rise to the well-known "Hardbake" simile. We may also find infarctions and surrounding capsulitis.

In the alimentary canal we see prominent follicles at the back of the tongue, the tonsils hypertrophied and occasionally ulcerated, and adenoid growths in the naso-pharynx and œsophagus, while the gastric mucous membrane may be thickened. The Peyer's patches and solitary follicles are enlarged. Dr. Pitt described extensive invasion of the intestinal wall by the lymphoid growth which, by weakening the muscular coat, led to dilatation of the bowel.

The liver shows, in many cases, nodules which vary in size from a pin's head to a large pea. The portal vein may be obstructed by the enlarged glands, with secondary ascites. The peritoneum is occasionally studded with lymphadenomatous nodules. Our Guy's Reports record three cases in which the pancreas was

involved. The lungs are affected in two ways, either by the primary occurrence of growths in the lymphatic tissue round the bronchioles or by invasion from the bronchial glands. Effusion into the pleura occurs. The heart is small and fatty, while deposits in the muscle are recorded. The kidneys are large and pale and may show cortical deposits. Nodules also are found in the suprarenals and testicles, though rarely in the ovaries. They may occur in the dura mater; seldom in the brain. The thymus is large. Skin deposits are described. The bone-marrow may show nodules or else a more diffuse change.

As to the nature of the disease, many authorities consider it an infective process, though evidence of direct transmission is decidedly scanty. An instance quoted is that of a medical man who, after examining the urine and fæces of a patient, developed lymphadenoma himself. Attempts to infect the lower animals have not succeeded, an emulsion of the glands when injected into apes failing to reproduce the disease.

Various micro-organisms, including a spirochæte, have been found in cases of Hodgkin's disease by bacteriologists, as Dreschfeld, Delbet, and White. Clinically the cases may be divided into acute and chronic. The consistence of the glands cannot be used as any criterion for the classification of the case, as in the same patient we may find both firm and soft.

The chief symptom is the enlargement of the lymphatic glands, which on examination prove to be unattached to the skin, discrete, and not till late adherent to each other. When quickly growing they are soft, becoming harder as they cease to grow. Their favourite site for commencement is in the triangles of the neck, where they may form a mass as large as the fœtal head, catching at once the observer's eye. By pressure on adjacent structures they produce secondary effects, such as dyspnœa, dysphagia, swelling of the arm, inequality of the pupils from pressure on the trachea, œsophagus, subclavian vein, and sympathetic nerves.

In the thorax they give all the symptoms of any mediastinal tumor, such as cough, dyspnœa, and dilatation of the superficial veins due to obstruction of the superior vena cava, and consequent establishment of a collateral circulation. There may be no air entry into one lung from obstruction of a bronchus. Compression of the left azygos vein may lead to effusion into the pleura.

The enlarged abdominal glands may be palpable and may give rise to symptoms by pressure on the inferior vena cava or solar plexus.

Enlargement of the spleen is rarely early or extreme, and it never extends over the middle line.

The changes in the blood are rarely great, consisting in most cases of a slight anæmia and a moderate leucocytosis, the relationship between the white cells being unaltered.

Galloway gives a fairly typical blood-count in the *Clinical Journal*, 1907 :—

Red corpuscles	5,120,000
Hæmoglobin	75 per cent.
Leucocytes	16,000
Polymorphonuclear whites ...	80 per cent.
Lymphocytes	13·5 „
Eosinophile	3·5 „
Mast cells	3·0 „

Nucleated red cells seldom occur.

On inspecting the mouth, we may find the gums spongy and pale. The patient is liable to intestinal disturbances, indigestion, diarrhœa, and hæmorrhage from the bowel. He may be jaundiced, and present a uniform enlargement of the liver.

Dyspnœa may be marked, especially in the later stages, as was impressed on my own mind by the case of a young girl whom, as a ward clerk, I saw in Mary under Dr. Hale White. It may be due to many causes, bronchitis, hydrothorax, or actual stenosis of the trachea.

The effects on the central nervous system are chiefly those due to pressure effects, *e.g.*, laryngeal paralysis.

The urine, in a few instances, shows a trace of albumen, and the presence of renal deposits can rarely be diagnosed with certainty.

The skin, besides the lymphoid deposits mentioned above, is pale, and is the seat, in a few recorded cases, of a fair amount of itching.

The temperature chart frequently shows pyrexia, which may be of the very interesting type described by Dr. Frederick Taylor in the Hospital Reports for 1906. This is of a chronic relapsing character, showing attacks of pyrexia with an interval of apyrexia. The pyrexia may last six to thirty days, the apyrexia six to twenty. During the former the temperature rises each morning till it reaches its highest, whence it falls by lysis to normal and then sub-normal. These excursions may recur for months, and may form a useful clue to the nature of the patient's malady. Ignorance of its occurrence has before now led to the diagnosis of "typhoid fever" or "hepatic abscess."

These patients seldom live more than four years after the onset, two-fifths of them succumbing within the year. Many, however, for some time enjoy quite good health, appearing perhaps as robust young men with a localised swelling of one set of glands, which later becomes generalised. Recovery is possible, especially in chronic cases, though then, of course, it is always open to the pathologist to deny the correctness of the diagnosis. Death ensues from exhaustion, asphyxia, starvation or some intercurrent disease, as pneumonia or tuberculosis.

To rapidly review the chief diseases with which Hodgkin's disease may be confused, lymphatic and spleno-medullary leuchæmia may be distinguished readily by the character of the blood, and in the latter by the greater enlargement of the spleen and later appearance of glands. Acute adenitis shows glands which are painful and rapidly suppurate, also an obvious source of sepsis such as otorrhœa or pediculi capitis. Tubercle is never general, and is limited to one or more groups of glands, which rapidly caseate and suppurate. The overlying skin becomes fixed early, and then breaks down with characteristic sinus formation. Associated with this are other signs of tubercle, while the patient will probably give one of the many forms of reaction.

Lymphadenoma, when limited, may be almost impossible to distinguish from lympho-sarcoma, with the pathology of which it is frequently confused. The latter extends sooner to surrounding tissues. If the glands be sarcomatous, we hope to find secondary or primary growth elsewhere. The presence of a primary growth elsewhere also serves to distinguish nearly all carcinomatous glands, primary carcinoma in fœtal remains being really rare. Such glands also grow and become fixed with much greater rapidity than those of Hodgkin's disease. As to the glandular enlargements in syphilis, those in the primary stage are distinguished by the proximity of the chancre, while in the secondary stage they are only small, are chiefly in the posterior triangles of the neck, and are associated with a rash, sore throat, &c.

Treatment may be divided into local and general. As to the former, the glands should be excised early if localised, fever and marked blood changes being absent. Cases have been recorded in which patients have remained free seven years or longer after operation. They should also be removed if interfering mechanically with important structures such as the trachea, though when the disease is extensive, such interference is useless, and does not check the progress of the disease. Diminution in size has certainly followed the application of X-rays, which should therefore be used where possible. The local injection of drugs is worse than useless.

Of drugs, arsenic is of proved value given in doses increasing up to 15 or 20 minims three times a day. Under a course of arsenic the glands have been known almost to vanish. Phosphorus is recommended; mercury, the iodides, bone marrow, and extracts of spleen and thymus have all been used without effect.

In the discussion which followed—

Dr. Boycott said: There is a large and obviously heterogeneous group of cases of local and general glandular enlargement which definitely tend to have a fatal termination. Apart from tubercular, syphilitic, leuchæmic, and a few other cases, the differentiation of the different forms on a basis of their clinical course and symptoms seems to be at the best extremely speculative. The primary sorting out which has been effected has been made on anatomical and histological grounds, and by this means pathologists have been able from time to time to assemble a group out of the general mass and thus reduce the amount of unclassified material. Dealing with cases of more or less general fatal glandular enlargement without known cause, we may distinguish between those which arise in the lymphoid part of a lymphatic gland, and those which primarily affect the supporting connective tissue or reticulum. Of the primarily lymphoid group, the well-known lympho-sarcoma was separated out many years ago; histologically, it is a sarcoma of lymphoid cells of relatively very typical structure, and with metastases which destroy as well as infiltrate the tissue in which they grow. We have also a group in which, with typical lymphoid cells, the metastases infiltrate but do not destroy; this group may be distinguished as lymphoma. In some cases the lymphoid tissue in lymphatic glands is involved, in others apparently the primary error is in the lymphoid tissue of the bone marrow; the latter group is not, therefore, associated with primary enlargement of glands. Most lymphomata show no changes in the circulating blood; others have a marked lymphocytosis. We can in this way pass by gradations which appear at present to be, and may in fact be, insensible from a primary glandular lymphoma to the frankest examples of lymphatic leuchæmia without primary glandular enlargement. Besides these groups we have also arising from the lymphoid tissue of lymphatic glands a variety of sarcomata in which the cells are atypical to a greater or less degree. Of the primarily reticular glandular enlargements we can at present only clearly separate out one group. As this is the first species, so to speak, of the genus which we have been able to definitely characterise, it is appropriate to call it "Hodgkin's disease." Its name, however, is quite immaterial so long as we recognise that we have a definite kind of pathological change. The characters whereby "Hodgkin's disease" in this sense may be recognised consist solely of the histological changes in the affected glands. The correlation between these and the clinical symptoms is not yet sufficiently worked out to enable the disease to be recognised during life without microscopical examination. There are no characteristic changes in the blood. The change in the glands consists in a proliferation of the reticulum with a disappearance of the lymphoid apparatus. It is an important character that this reticular proliferation only results in part in the production of more adult reticulum; for the most part it gives rise to a heterogeneous collection of cells of varying and to some extent bizarre appearance. Most conspicuous among these, and of the greatest diagnostic value, are multi-nucleated cells varying in size from a large reticular cell with a couple of nuclei, to a regular giant cell with many; all intermediate grades are also present, and one of the most noticeable features is the lack of uniformity among the new cells. Eosinophile and plasma cells are generally present, often in abundance, but this is not invariably the case. The ætiology of the cases which form a definite kind of disease in virtue of their uniformly possessing these remarkable histological changes in the enlarged glands is quite unknown. The idea that they are tubercular is prehistoric. Organisms cannot constantly be found in them, and attempts at experimental infection have all failed. The histological changes do not suggest a response to infection: the atypical growth points in the same direction as the natural history, *i.e.*, that the condition is a sarcoma of the reticulum of lymphatic glands of a low degree of malignancy. Besides Hodgkin's disease there are also a number of other general glandular enlargements in which we find, on microscopic examination, that the enlargement is due to reticular proliferation. The changes are quite different from those above described, and are not always the same. Some of them may obviously be reasonably called sarcomata; of the others we know practically nothing.

Guy's Physiological Society.

THE third Annual Dinner of this Society was held on Monday, March 15th, in the College Library. Dr. Pembrey (President) occupied the chair. Dr. Cameron, Messrs. Thompson, Mollison, Hughes, Ryffel and Laidlaw (Vice-Presidents) were present, making a total of sixty members and visitors.

The speeches were very humorous. Mr. Layton was called upon unexpectedly to respond to the toast of "His Majesty's Forces," which he did with great gusto.

Dr. Cameron proposed "The Society," to which the Secretary replied.

Mr. Thompson, in proposing "The President," said he would only mention his vices, as to enumerate his virtues would take too long; whilst the President, in reply, stated that he could mention all the hon. proposer's virtues without undue waste of time.

Mr. Marshall proposed the health of the Vice-Presidents, and made a great "hit." He said that vice-presidents as a rule were merely ornamental, but our vice-presidents were not ornaments to the Society. They were useful members. He divided them into two classes—those who performed their duties under the firm hand of Mr. Hancock, and those who pursued their daily round under the protecting care of Mr. Baker. The latter wore clean white coats; the former—white coats. He then spoke of them separately, and each one in turn quailed as his pet weakness was exposed.

Messrs. Ryffel, Laidlaw and Hughes responded, Mr. Hughes remarking ambiguously that if the officers of the Society were not ornamental it was due to the Secretary.

Mr. Ryffel proposed "The Committee" coupled with "The Secretary," to which Messrs. Cook and Ryle and the Secretary replied.

Between the speeches songs were rendered by Messrs. Oram, Moberly, W. Matthews and Gatley, and a pianoforte solo by Mr. Mackenzie, whilst Mr. Levinson gave some good recitations.

The National Anthem was played about 11.15 p.m., bringing to a close a most enjoyable evening. The dinner was voted on all sides a great success.

Pass List.

ROYAL ARMY MEDICAL CORPS.—H. F. Joynt, M.B.

INDIAN MEDICAL SERVICE.—H. Stott, M.B.

F.R.C.S., IRELAND.—C. L. G. Chapman.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Appointments.

Civil.

GOODMAN, W. J., L.D.S. Eng., has been appointed Honorary Dental Surgeon to the Taunton and Somerset Hospital.

STEBBING, G. F., M.B., B.S. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Medical Officer to the Lambeth Parish Infirmary, S.E.

WOOD, T. N., M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the Queen's Hospital for Children, Hackney Road, E.

Naval and Military.

Fleet Surgeon P. M. MAY, R.N., has been appointed to the *Goliath*, and Staff-Surgeon E. TUCK, R.N., to the *Hannibal*.

Staff Surgeon CHAS. R. NICHOLSON, R.N., has been awarded the Sir Gilbert Blane Gold Medal for the Journal of H.M.S. *Egmont*, between November, 1906, and December, 1907.

Lieutenant-Colonel W. H. ELLIOTT, D.S.O., M.B., I.M.S., has been permitted to retire from the Service. Lieut.-Col. Elliott went to South Africa with an Indian Field Hospital, was in Ladysmith during the siege, and got the D.S.O.

The Kaiser-i-Hind Gold Medal has been conferred on Captain E. J. O'MEARA, F.R.C.S., I.M.S., in recognition of his services in connection with the recent famine and outbreak of plague in the United Provinces, India.

Captain C. H. REINHOLD, I.M.S., has been appointed Special Plague Medical Officer in the United Provinces, India.

Territorial Force.

Royal Army Medical Corps. Third Southern General Hospital—To be Major: JOHN A. P. PRICE, M.D. To be Captains: E. C. BEVERS, M.B., H. M. CLARKE, M.B., N. B. CLOWES, H. E. COUNSELL, F.R.C.S., W. E. ROBINSON, M.D., W. E. SECRETAN, M.B., F.R.C.S.

University of London.

The following have been appointed Examiners in Inorganic Chemistry and Physics for the First Examination for Medical Degrees, to be held in July and December, 1909:—

Inorganic Chemistry.—JOHN WADE, D.Sc. (Internal).

Physics.—A. H. FISON, D.Sc. (Internal).

Appointed Examiner in Organic and Applied Chemistry for the Second Examination for Medical Degrees, Part I., to be held in July, 1909, and March, 1910: JOHN WADE, D.Sc. (Internal).

Appointed Examiners in Physiology and Pharmacology for the Second Examination, Part II., to be held in July, 1909, and March, 1910:—

Physiology.—M. S. PEMBREY, M.D., B.Ch., M.A. (Internal).

Pharmacology.—A. P. BEDDARD, M.D., B.C., M.A., F.R.C.P., M.R.C.S. (Internal).

Appointed Staff Examiners for 1909–1910:—

Practice of Medicine.—G. NEWTON PITT, M.D., B.C., M.A., F.R.C.P., M.R.C.S.

Forensic Medicine and Hygiene.—Professor H. J. CAMPBELL, M.D., F.R.C.P.

The Correlation between Mandibular Movement and Tooth Form.

DENTAL CLINICAL LECTURE BY J. B. PARFITT.

GENTLEMEN,—The shapes of the teeth and their arrangement in the dental arches are a matter of great interest to us as dentists, especially in connection with prosthetic work and orthodontia.

If you turn up the old files of the dental magazines, you will find that every year or two there will be an article or a crop of articles on this subject, or one relating to it, several papers and a fair sized book having appeared quite lately.

I think you will agree with me that although neither jaw movement without teeth, nor teeth without jaw movement, would be of much service to us for mastication, yet it will be very much easier to imagine the teeth as adapted to the jaw movement than *vice versa*.

One of the latest papers on mandibular movement is that of Mr. Norman Bennett in the Transactions of the Royal Society of Medicine. Mr. Norman Bennett fixed some small electric glow lamps to his own lower jaw and recorded the movements of it by forming an image of the lamps on a piece of photographic paper in a darkened room.

A glance at some of these records is enough to show us that the movement of the mandible as a rule does not take place according to any simple law, and Mr. Bennett shows mathematically, and illustrates by a working model, that the centre of movement of the lower jaw is a point that is constantly shifting from place to place in an irregular manner.

Complex movements of this kind are most easily understood if we can imagine them as compounded of two or more simple elementary motions, that can be varied in their relative amount, but remain the same in kind throughout the various combinations. Imagine, for instance, the motion of a point on the surface of a billiard ball, studied by Mr. Norman Bennett's method; if a small electric lamp the size of a pea were fixed to a ball, and the necessary photographic arrangements made for recording a tracing of the path of the point of light, on setting the ball rolling we should find the record would consist of a wavy line, the usual shape of which would not be the same twice following, unless the same conditions were exactly reproduced. A mathematician would of course recognise these curves for what they were, but to the ordinary man they would be only so much confusion, and yet if he were shown how they were produced he would easily understand that they were one and all due to the ball spinning round and moving forward on the table at the same time, and he would imagine the motion traced by the curved line to be composed of two elements, one a uniform motion in a straight line, and the other a simultaneous travelling round the circumference of a circle, in a plane passing through the straight line, the difference between the different tracings being due to alterations, not in the nature of the two elementary movements, but in the size of the circle described and the relative speed of the two movements of the combination.

The movements of a point fixed to the lower jaw, anywhere near the teeth, are far more complicated than the simple ones we have just been considering, inasmuch as such a point may move up and down, sideways, or forwards and backwards, or in any intermediate direction whatever, at the will of the subject of the experiment. Nevertheless it is easy to imagine the movement as being made up of two or three simple elements, by combinations of which in various proportions all possible movements of the mandible may be produced. These simple elements are:—

1. A movement of rotation about a horizontal axis passing through the two condyles.

2. A movement of translation of the whole mandible downwards and forwards, by a sliding of the condyles over the articular surfaces. It is well to notice that if this movement occurs uncomplicated by any other, every point on the mandible will be carried along a path similar and parallel to that of the condyle itself.

3. A movement of rotation about a nearly vertical axis passing through one condyle; this movement may take place on either side.

A little examination of one's self, or still better an edentulous patient, will show that, although generally combined, yet within certain limits each of these movements may occur singly. For instance, when we are "trying in" an edentulous denture, we know that a certain amount of opening can take place without any forward movement at all, the position so obtained being what we call the "right bite." On the other hand, we know full well that, without any opening wider than the original resting bite, either forward or sideways movement may take place with the greatest ease.

By combinations of these elements in varying amounts are produced the various complex and

otherwise almost unintelligible movements of the mandible.

For instance, an "edge-to-edge bite" may be produced by a forward movement of the whole jaw, for perhaps one-eighth of an inch or more, along the condylar path, together with an opening rotation about the horizontal axis of a few degrees. A cycle of masticatory movements on one side may be considered as:—

1. Opening, by rotation about the horizontal axis through perhaps ten degrees, combined with rotation about the vertical axis, passing through the condyle of the masticating side, the rotation being of sufficient amount to bring the molar cusps opposite to one another although separated by some space.

2. Closing by horizontal rotation until the cusps meet.

3. Combination of the residue of the reversed horizontal rotation with the whole of the original vertical one reversed, so as to bring the teeth back to the original resting bite again; the teeth having by these movements crushed the substance placed between them after the opening movement.

By suitable combination other movements may be made; in fact, a point on the mandible not in the axis of rotation, for instance at the tip of the left lower canine, has within a certain limited space an universal motion; within that space it can move from any one point to any other, by any path, straight or otherwise.

There are three typical positions of the mandible in which the relation of the upper teeth to the lower should be especially noticed.

1. In the "resting bite" the two rows of teeth fit one another all round with extraordinary accuracy. This may be well seen by examining a piece of wax or soft composition that has been bitten through by a person with a regular set of natural teeth. It will be further noticed that the upper arch is slightly larger than the lower one, so that each upper cusp lies just outside of, and in a distal position to, the corresponding lower one.

2. In the "edge-to-edge" bite the mandible moves forwards and downwards, and also rotates on its horizontal axis, sufficiently to let the cutting edges of the lower front teeth meet those of the upper ones. A careful examination of the molar teeth in this position will reveal the fact that several molar cusps are meeting on both sides, and so helping the weaker front teeth to bear the strain of the bite.

3. The other important position to notice is the "side bite," when the teeth are just on the point of crushing some food substance. This position is obtained by combining a small amount of opening with a rotation about the vertical axis passing through one condyle. By this means the lower molar teeth of the side on which the axis of rotation lies are carried downward and outwards, so that their cusps lie just underneath, and in contact with, the corresponding ones of the upper jaw. A careful examination of the other side will show that several molar cusps are still in contact, so as to keep the whole jaw steady during the grinding movement about to take place.

Our problem is to find out what particular shapes the molar cusps must have, in order that these somewhat extraordinary relations may hold. We will suppose that the slope of the front teeth, and of the joint path, has already been determined.

Consider, first, the "edge-to-edge" position. It is well to choose some particular plane as a horizontal from which to measure our distances and angles. One that will serve as well as any other is the plane that touches the tip of the highest cusp of each lower wisdom tooth, and the tips of the lower central incisors at their point of contact with one another *in the resting bite*. If measured in the resting bite, this plane will be a fixed level with relation to the skull.

We will suppose for the sake of simplicity that we have a case in which the joint path is parallel to this horizontal plane.

In order to gain the "edge-to-edge" position, the lower front teeth must be carried downwards for a certain distance, say one-eighth of an inch, by opening the jaw, and then forwards, say also one-eighth of an inch, by a movement of translation. The path resulting from the combination of these two movements will be about ·175 inches long, and inclined to our horizontal plane at an angle of forty-five degrees. Moreover, as in a normal set of teeth the lower ones slide along the surfaces of the upper in getting to the "edge-to-edge" position, this inclined path will actually be the lingual surface of the upper incisor tooth. From this we see that the paths of the molar cusps will be determined by two factors, the slope and length of the lingual surfaces of the upper front teeth, and the slope of the joint path.

In the case we are considering let us see what is happening to the back teeth; take for example the anterior external cusp of the lower third molar. While the lower front teeth are being moved downwards one-eighth of an inch by the opening movement, the third molar will not move so far, because it is much nearer the

centre around which this particular motion occurs. Suppose it is only half the distance from the centre, in this case the downward movement would amount to one-sixteenth of an inch; on the other hand, the horizontal movement of translation, inasmuch as it affects the whole jaw equally, will be the same for the molars as for the front teeth. Combining these two movements as before, we get a path that is both shorter and less inclined than that of the front teeth; in this particular case it would be about ·14 inches long, and inclined to our horizontal plane at an angle of about twenty-five degrees. This path coincides, both in length and slope, with the anterior edge of the cusp we have chosen, and also with the posterior edge of the cusp of the second upper molar that fits against it in the resting bite. In this way we can easily determine the length and inclination to the horizontal of the sagittal section of all the lower cusp slopes that look forwards, and the corresponding upper ones that fit against them and look backwards. If the molars and premolars are set quite level, without any curve upwards at the back, the other sides of these cusps will have the same slopes, and the shapes in the sagittal plane will have been completely determined. If the arch is curved upwards behind, our lower tooth will be tilted forwards, so that, instead of being horizontal, it is inclined at a slight angle. This will necessitate a corresponding flattening of the cusps if their front surfaces are to be inclined at the same angle as before, and as this curve of the arch allows the use of the flatter cusps than would otherwise be necessary, it is sometimes called the "compensation curve."

The determination of the shapes of the cusps in coronal section is a little more difficult, as in the side movements the two sides of the jaw are not moving in the same way at the same time.

Take the "side bite" in which the jaw moves over to the left. In this case the lower front teeth move sideways, so that the lower canine rides up on to the front edge of the upper one. This necessitates an opening movement by rotation about the horizontal axis, and also a movement of rotation about the left vertical axis.

Again, for simplicity we will suppose each of these movements in the region of the canine to amount to one-eighth of an inch, and that the left condyle remains in its socket. The resulting path along the sloping lingual surface of the left upper canine will again be ·175 inches long, and inclined at forty-five degrees to our horizontal plane.

As before, let us consider the movement of the external anterior cusp of the lower third molar, but in this case we shall have to take each side separately. As the condyle remains in its place, we have only rotatory movements to consider, so they will both be reduced in the same proportion, so far as actual length is concerned. Accordingly, the outward path of this cusp on the left side will be only half the length of the path traversed by the canine, but its inclination will be the same, namely, forty-five degrees.

We see now the explanation of the fact that the actual breadth of molars decreases towards the back.

We may now consider what is happening to the corresponding molar cusp on the other side. The opening movement will be the same as before, the two teeth being equal distances from the centre of rotation; by means of this movement the cusp will be carried almost directly downwards one-sixteenth of an inch. The rotation about the vertical axis will affect this cusp in quite a different fashion to the other one. It will be carried forwards and inwards, along a line inclined at sixty degrees to the coronal plane, the length of which will be approximately equal to the distance travelled by the front teeth, *i.e.*, about one-eighth of an inch. Inasmuch as this path is not directed straight inwards towards the tongue, but inclined at sixty degrees to that direction, the distance travelled straight inwards will be only half the total path, or one-sixteenth of an inch. Accordingly we shall have for the inner slope of this cusp, as for the outer slope of the corresponding cusp of the other side, a short surface about one-sixteenth of an inch long, inclined at an angle of forty-five degrees to the horizontal; consequently, as may be easily shown, both of these teeth will have outer cusps whose coronal cross section will be a right angle, and this must also be the shape of the groove between the inner and outer cusps of the corresponding upper molar. The other articulating surfaces of the same teeth will be parallel and similar to those we have already considered.

In the same fashion may the shapes of the cusps of the first and second molars be determined, but owing to their differing distances from the centre of rotation, their shapes will differ from that of the third molar, and from one another. This special case was chosen, not because it would occur naturally, but because it lent itself easily to calculation. Any naturally occurring case could be easily treated in the same way, and those shapes of the molar cusps

determined, which would give the proper balancing action in "edge-to-edge" and "side-bite."

In conclusion, I should like to mention a little instrument, invented by Dr. Gysi, for directly measuring the cusp angles in the coronal plane without any calculation. The models are correctly set up on the anatomical articulator, so that its joints really represent the natural joints in relation to the alveolar ridges. The joint paths are determined, and the slope of the front teeth set, if there are no natural ones present. The measuring instrument is then put in place of the tooth whose occlusal groove it is required to determine. The measuring instrument consists of two small rectangular plates of metal hinged together along one edge. The hinge is fixed so that it lies exactly in the position of the bottom of the longitudinal groove of the future tooth. A pencil, or some other similar pointed instrument, is now fixed to the other jaw of the articulator with its point between the two plates, touching their hinge, and at right angles to it. If side movements are now made, the plates will be deflected by the moving point, and the angles through which they are moved are the angles of the side of the occlusal groove of the future tooth. These angles can be read off directly from a little scale fixed to the end of the measuring instrument.

Change of Address.

C. Edmund Aikin, L.R.C.P. Lond., M.R.C.S., from Llandrillo, Corwen, North Wales, to Abbey Dingle, Llangollen, Denbighshire.

R. W. Allen, M.A., M.D., B.S., from 58B, Wimpole Street, W., to 128, Harley Street, W. (after April 1st).

Arthur F. Hertz, M.D., B.Ch., M.R.C.P., from 16, Lower Seymour Street, W., to 1, Weymouth Street, W.

C. C. Holman, M.A., L.R.C.P. Lond., M.R.C.S., from Guy's Hospital to Addenbrooke's Hospital, Cambridge.

T. A. I. Howell, L.R.C.P. Lond., M.R.C.S., from 62 to Oriel Lodge, 59, Upper Richmond Road, Putney, S.W.

T. L. Jackson, B.A., M.B., B.C. Camb., from the Beeches, Cheadle, to Holly House, Cheadle, Cheshire.

G. F. Stebbing, M.B., B.S. Lond., from 21, Lewin Road, Streatham, S.W., to the Lambeth Infirmary, Brook Street, S.E.

T. N. Wood, M.B., B.C. Camb., from the Woodlands, Gravesend, to the Queen's Hospital for Children, Hackney Road, E.

Walter R. Wood, M.R.C.S. Eng., L.R.C.P., L.D.S. Eng., from 28, Old Steine, Brighton, to 1, Brunswick Court, Brunswick Place, Hove, Sussex.

A Case of Acute Tracheal Obstruction.

BY H. STOTT, LIEUTENANT, I.M.S., M.B., B.S. (LOND.).

L.C.R., æt. 3 years, was seen for the first time in the Front Surgery of Guy's Hospital on February 17th, 1909. His mother said that for the last week he had been troubled with a "hacking cough," but that during the morning his respirations had gradually become of the present character. There was no history of recurrent attacks of laryngeal spasm. His temperature was 98·6° F.

On examination.—The boy was in excellent general condition, well nourished, with bright red cheeks and lips, not in the least cyanosed. Each inspiration gave the listener the impression that bubbles of air were being easily drawn through a fluid; a well-marked inspiratory stridor was also present. The costal margin was slightly but very definitely sucked in at each respiration. The chest was everywhere resonant to percussion, and upon auscultation the hoarse stridor and many loose bubbly râles were everywhere to be heard.

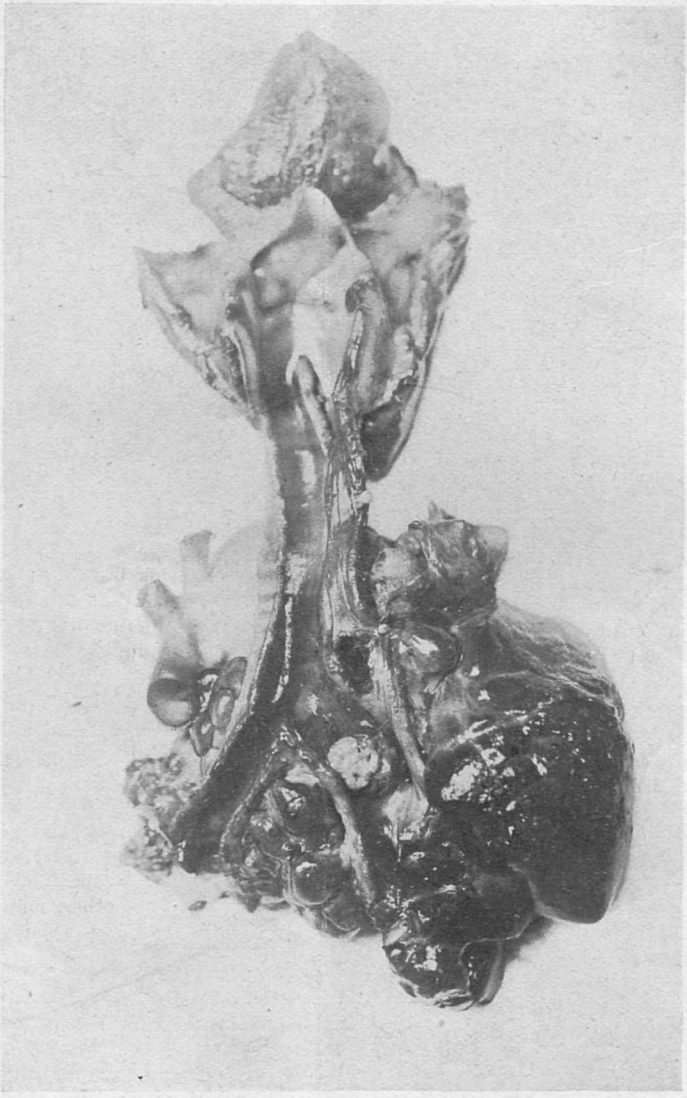
From this rough examination the general opinion was formed that the child was suffering from a laryngitis (accounting for the stridor), together with a severe tracheitis and bronchitis. Broncho-pneumonia was not thought to be present, owing to the afebrile temperature, the excellent general condition, and the absence of any characteristic lung signs. The tonsils and fauces were seen to be clear of any membrane, but a swab was taken for the possible identification of the B. Diphtheriæ. Koplik's spots were absent, and no symptom at all suggestive of measles was noted. No sign of a retro-pharyngeal abscess was present.

The house-physician and clinical were called with a view to the little patient's admission into the hospital, but he was not thought to be in any immediate danger.

Just as the clinical arrived—some ten minutes after the child was first seen—the staff nurse reported that the boy had suddenly been taken much worse.

The whole appearance of the patient was now changed; his head hung back in a lifeless manner over his mother's arm; his lips and cheeks were deeply cyanosed, standing out in marked contrast to the marble whiteness of the skin between them. Each attempt at respiration was feebler than the last, and each succeeded the one before it after a greater lapse of time.

A Case of Acute Tracheal Obstruction.



The larynx, trachea and bronchi have been opened from behind. The posterior fibro-membranous aponeurosis has been turned back to the right. Above the apex of the right lung a mass of tuberculous glands is to be seen adherent to the trachea. Just above the bifurcation is the ulcer through which the caseous white mass resting in the right bronchus escaped. Below the aorta, as it curves over the left bronchus, and in the cleft between the two bronchi, enlarged bronchial glands are evident.

Within a few seconds the trachea was opened with an unsterilized knife, and the wound in the windpipe kept patent. This procedure did not relieve the respiratory distress in the least.

A tracheotomy tube was introduced and artificial respiration was attempted. It was noticed, however, that no air could be forced out of, nor sucked into the lungs. Some obstruction, then, between the tracheotomy wound and the lungs was obvious. A feather was inserted through the tube and pushed down as far as the bifurcation of the trachea in the hope that this obstruction might be due to removable diphtheritic membrane or viscid mucous. When withdrawn the feather was noticed to be covered with a muco-purulent slime. One artificial respiration seemed to follow this procedure, but in spite of the strychnine which had been administered, and the oxygen which had been escaping vigorously, the heart was found to have stopped, and still further attempts at artificial respiration were futile.

On February 28th, Dr. French kindly made the post-mortem which had been insisted upon. The larynx was found to be healthy. Above the right bronchus a mass of tuberculous glands was found adherent to the trachea, which was itself perforated just above the bifurcation by an ulcer opening through that posterior aspect of the tube which is devoid of cartilaginous rings, but completed by a fibrous membrane.

The base of this ulcer was formed by caseous material directly communicating with a caseous cavity in the centre of the mass of glands above mentioned. The right bronchus contained a plug of the same thick caseous material, about the size of two large peas. The left bronchus was patent throughout. No broncho-pneumonia was present.

An interesting and rare condition was noted in connection with the child's thymus gland, in one lobe of which a nodule was felt. This, on section, proved to be a caseous area about the size of a monkey nut. The bronchial and mesenteric lymph-glands, the solitary follicles and Peyer's patches in the intestines were all definitely enlarged.

Explanation of the symptoms.—It would seem as though the primary cough noticed by the mother was partly due to an irritation of the trachea, the result of its erosion by the tuberculous mass. The stridor was probably produced by a bulging of the caseous material covered with mucous membrane into the lumen of the tube in consequence of two local factors—firstly, an increased pressure from without, due to inflammatory change, and, secondly, a weakened condition of the tracheal wall, due to its ulceration.

The sudden cyanosis would be explained by the escape of the caseous material into the trachea just above its bifurcations, obstructing the orifice of each bronchus more or less completely, and thus preventing the ingress and egress of air noticed when attempts at artificial respiration were instituted. The plug of caseous material was probably displaced into the right bronchus by the passage of the feather down the trachea.

In conclusion, my best thanks are due to the Hospital Photographic Department and to the Gazette for the great pains they have taken in the reproduction of the dissection of the trachea on paper.

From the Gazette's Special Pathologist.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the Manager, Gazette Office, Guy's Hospital.

NOTICES.

W.E.S.C., Balham.—This slightly blood-stained specimen contains a moderate number of tubercle bacilli.

G.M.J., Alton.—This specimen contains some small patches of muco-pus, but no tubercle bacilli are detected.

Periodicals Received.—The Hospital; The Clinical Journal; Polyclinic; The Stethoscope; Calcutta Medical Journal; The M.S. Journal; Manchester University Magazine; Manchester Medical Students' Gazette; St. George's Hospital Gazette; Gazette Médicale de Paris; Middlesex Hospital Journal; St. Bartholomew's Hospital Journal; South African Medical Record; St. Mary's Hospital Gazette; The Nursing Times.

Reviews, etc.

The price of books submitted for review should in every case be stated.

Mind and its Disorders. By W. H. B. Stoddart, M.D., F.R.C.P. (Lewis's Practical Series). Price 12s. 6d. net.

This is the last text-book on psychological medicine published in England, and it will hold a very high position there. The book begins with a careful *résumé* of the present knowledge of experimental psychology; this is followed by a concise and sufficient description of the anatomy and of the microscopic structure of the brain, with the localisation.

The practical work which Dr. Stoddart has done, and is still doing, is represented in the work. He has a broad view of things, so that while recognising the necessity of introspection in the study of mental functions, he admits that there is a great unknown future before the more practical students of experimental psychology.

The illustrations are good, the type and printing excellent. We feel that this book provides all that is required for the practitioner with more ideas than those needful for certifying and safeguarding insane patients. It is a book leading to thought, and also full of information.

In considering any book on insanity there are several points to which one at once refers. We are glad to find that in this book there is no new table of classification. Insanity is, and must be for some time, an ill-defined territory, and all classification must be provisional.

Dr. Stoddart writes clearly but briefly on the general causation of insanity. He says that the most important endogenous cause of insanity is heredity, which accounts for more than 50 per cent. of the cases. This is, in our opinion, a rather high figure, unless one takes in all collateral relations under the word heredity. Our author accepts (within brackets) the new term of maniacal depressive insanity, which includes the very large number of patients with recurring attacks of mental disorder which vary in expression, being maniacal, melancholic, or stuperose at times. He accepts the German terms—in fact, one would almost feel inclined to think that all his authorities were German. His references to English authors are few and far between. He treats fairly the question of dementia præcox—a form of disorder whose very existence is doubted by many in England. He treats it as evolutional failure, rather bearing out the definition of some of the cases which Clouston long ago described as postponed idiocy. As might be expected, the chapter on General Paralysis (Dementia Paralytica) is excellent, and it is described as a metasyphilitic disease.

It is not necessary to go over the whole book; it suffices to say that it fulfils its function as not only an instructor on the subject, but as an incentive to work and a help in practically treating a very serious malady.

A Dictionary of Medical Treatment for Students and Junior Practitioners. By Arthur Latham, M.A., M.D. Oxon., F.R.C.P., Physician and Lecturer on Medicine at St. George's Hospital, Senior Assistant Physician to the Brompton Hospital for Consumption. (J. & A. Churchill.) Price 6s. 6d. *net.*

This little book of three hundred pages, giving a fairly extensive account of modern medical treatment, and withal commendably brief, is certain of a welcome by medical students, especially as it comes from the pen of Dr. Latham. We are quite sure that it will be very useful to the man reading for the finals of the Conjoint Colleges. The paragraphs upon Diabetes, Phthisis, Heart Disease, Neurasthenia, and Obesity, the details of Schott-Nauheim treatment, Fränkel's Exercises, and Sanatorium life, will, we are sure, fill big gaps in some of the well-known text-books on medicine. Personally, we should have been inclined to omit the short article on "Common forms of Poisoning." We think that it is not needed, and if included it should be more extensive. On page 123, writing of the treatment of gastric ulcer, the author states that nutrient enemata are of small service. We disagree with him altogether. We notice, however, that the nutrient which he suggests is one of the old pattern, and not one of those first advocated by Dr. Beddard, which are universally employed at Guy's. We think that a paragraph on "rectal feeding" would be an excellent addition to the book. On page 178 we read, under the heading of "Lardaceous Disease," that "if the cause can be dealt with in the early phases of the disease, *recovery is common.*" (The italics are ours.) This is questionable. It is certainly our experience that when the disease is recognised clinically, the patient is going from bad to worse. The only other adverse criticism we would make is upon the use of *non-official* preparations in the text. The examination candidate may get into trouble if he employs these, and seeing that the book is written for *students*, it would be well, we think, in future editions to omit these, or to label them distinctly as "not official."

We rejoice in the dogmatic style of the book; it breathes the opinion of the author, an opinion very much to be valued, and in these days of endless copying from one text-book to another, such a volume is most acceptable. We hope that when a second edition is called for, it will not be made any larger, but kept to the present convenient size.

The Medical Inspection of School Children. (*The Medical Officer* Press.) Price 1s. net.

The series of lectures delivered at the West London Post Graduate College on the Medical Inspection of School Children gives, in an interesting and compact form, the outlines of the work to be carried out in this direction in accordance with the requirements of the Board of Education.

We recommend these lectures to the notice of those who are intending to become School Medical Officers, but the lecturers seem to expect the ordinary conditions

for examination prevailing in the out-patient departments of our hospitals.

Examination and detection of defects may be easy in a well-lighted and warmed room when children are accompanied by a parent and have been sufficiently undressed, but inspection is much more difficult in schools with insufficient accommodation for medical inspection and with clothes merely "loosened."

We should have been glad to learn the best method of inspecting infants newly admitted to school who have not been accustomed to school discipline, as these form a large bulk of those requiring examination.

The Lectures on the Examination of the Eyes, Ear, Nose and Throat, are well worth reading.

An Introduction to the Science of Radio-activity. By Charles W. Raffety. (Longmans, Green & Co.) Price 4s. 6d. net.

In the course of two hundred pages the author has exhausted the vocabulary of wonderment in describing our present knowledge of radio-activity. Such words as "wonderful," "extraordinary," "remarkable," "incredible," etc., occur on almost every page. Medical students who desire to know something about a substance which is likely to prove of increasing importance as a therapeutic agent, and who are able to withstand the disquieting effects of the somewhat unrestrained language of the author, will find in this little book an accurate *résumé* of the subject. It is written without the use of mathematics, and is illustrated with clear and simple diagrams.

The Ætiology and Nature of Cancerous and other Growths. By W. T. Gibson, A.R.C.S. (London: John Bale, Sons & Danielsson, 1909.) Price, 6s. net.

The atheistical tendencies of the profession have often been deplored in fact and in fiction—whether justly or not we do not know. There is, however, not the slightest doubt that their own bible is one of the last books which the great majority of medical men ever dream of looking into. Yet the charter of their existence is contained in the astonishing work entitled "Supplement to the Sixty-fifth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England and Wales: Part II.: Price, 1s. 10d." A study of this simple tale of what people die of has evidently given Mr. Gibson (who, we take it, is not a medical man) furiously to think. He finds there recorded the remarkable fact that of every hundred thousand "brewers" 138 die of cancer, and of "general labourers" 179, while in a similar number of "farm labourers" only 96 succumb to that disease, and but 82 "wheelwrights." He further finds that the proportion of each thousand of the persons following these occupations who are over 45 years of age is for "brewers" 266, for "general labourers" 319, for "farm labourers" 335, and for "wheelwrights" 324. There are here, in the similar figures for all the other 104 "occupations" recognised by the Registrar-General, a series of more or less definite facts which should necessarily be correlated with any explanation of the nature of cancer which can be considered adequate. Data such as these cannot be altogether neglected on the ground of the inaccuracies of death certificates. Whether they really indicate a line along which we may profitably search for the cause of cancer is another matter. Mr. Gibson thinks they do. His thesis, as far as we understand it, is that cancer is for the most part due to irritation. That mechanical irritation is often the precursor of malignant growths is the one definite fact which we have which bears on their ætiology: the author desires, however, to include under the heading "irritation" a great many rather nebulous phenomena supposed to be brought about by more or less immediate contact with vapours and smells as well as those definitely due to short clay pipes. In support of his thesis he has accumulated from the literature an extraordinary array of statements with regard to the circumstances of life which precede the appearance of cancers. The statements are very suggestive, and emphasise a side of the cancer problem which is often neglected by laboratory workers; we have nothing but admiration for the moderate and tentative attitude with which conclusions are suggested. But the data given are quite useless for close study. The author does not seem to realise that such a statement as (page 15) "the incidence of cancer is greater in the neighbourhood of sewage farms and badly-kept manure heaps" is meaningless unless substantiated by exact numerical data. If he does not give these data, he ought to tell us where we can find them. This he does not do, and there are no references to literature at all—an attitude curiously at variance with the appeal to the Decennial Supplement with which the book begins. The reference to manure heaps—which we took quite at random—is indeed entirely inconsistent with the numerical statement in the tables quoted from the Supplement to the effect that the incidence of cancer among farmers, farm labourers, and "all occupied males in agricultural districts" is in the proportion of 51, 45 and 51 respectively. The book, therefore, is only half a book; one can only get out of it what the author has put into it; it is interesting and readable, but it does not breed,

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Trade Notes.

Duty on Cocoa.—With regard to the duty on Cocoa, Messrs. Cadbury Bros. have written to us as follows:—

"Judging by speeches delivered in various parts of the kingdom, our attitude with regard to the duty upon cocoa is apparently misunderstood. We have never asked for Protection on cocoa, and for many years no change has taken place in the duty.

"The duty on cocoa is raised for Revenue, and not for protective purposes. It is in the same category as the duty on tobacco, coffee, wines, etc. The duty differentiates between raw cocoa and manufactured cocoa, that upon raw cocoa being 1d. per lb., and that upon manufactured cocoa 2d. per lb. This difference is

not primarily designed to give the home manufacturer an advantage, but to place him on an equality with the foreign competitor in the home market. In converting the raw material into manufactured goods there is a large loss resulting from the removal of imperfect beans, dust, outer husks, etc., and loss of weight in roasting. It is to allow for this wastage that the differential duty, as between the raw material and the manufactured product, is imposed. A similar differentiation exists in regard to tobacco, coffee, etc. On cigars, double the duty is paid that is paid on unmanufactured tobacco, whilst on raw coffee the duty is 14s. per cwt., against 18s. 8d. per cwt. on roasted coffee. In each case there is a slight advantage to the British manufacturer. In the case of cocoa, it amounts to only 2 per cent., or something between one farthing and one halfpenny per pound.

"But even this advantage is counterbalanced by the absence of any rebate or drawback on exported cocoa. On every pound of manufactured cocoa we export, we pay 1½d. duty, the ½d. representing the difference between a pound of raw cocoa and a pound of manufactured cocoa. By the absence of drawback the home manufacturer is handicapped to the extent of nearly 6 per cent. in comparison with his foreign competitor in neutral markets. In Holland, for example, there is no duty on raw imported cocoa; in France and Germany drawback is allowed on exported cocoa.

"The existing duty upon cocoa only illustrates the difficulty of applying tariffs with absolute justice as between all the interests involved, and we are convinced that the removal of the present duty upon one of the important foods of the people would be a gain to the consumer, and would involve no loss to the manufacturer.

"We may add that we have consistently advocated for many years the abolition of the duty on cocoa as on other articles of food.—Yours truly,

"CADBURY BROS., Ltd."

ANTISCLEROSIN.—We have received from Messrs. REITMEYER & Co., of 63, Crutched Friars, E.C., a sample of "Antisclerosin," of which they are the sole consignees for Great Britain and the Colonies. This preparation is in the form of white tablets put up in glass tubes. The tablets consist of the normal blood salts, calcium glycero-phosphate and magnesium salts; potassium salts are absent. On the theory that arteriosclerosis is due to a pathological condition of the blood salts caused by unsuitable nutrition, this preparation is offered as a rational therapeutic agent in this disease, and it appears to have done good in many cases.

TO EXCLUDE NOISE.—At a recent Conference of the Street Noise Abatement Association, of 1, Finsbury Circus, E.C., an ingenious patented appliance for preventing undue noise from entering the ears was exhibited for the first time. The appliance will, it is thought, be found very serviceable for invalids requiring freedom from noise, and will probably be much used by professional men and others whose work is constantly interrupted by harsh and discordant sounds.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Hospital Fires.

DEAR SIR,—To those whose knowledge of the fire yesterday morning was gained from the *Star*, this letter will probably appear to be a waste of your valuable space. Those, however, who were suddenly wakened shortly after 7 a.m. with the startling summons, "There's a fire in the medical building, and you are wanted there at once!" will, I feel sure, share the opinions which I am about to air.

Gray was nearly a quarter of an hour getting round to call all the men in the college, which was quick work considering there are sixty bedrooms on four floors. Surely much time would be saved if there were a fire-bell for him to ring instead of going into each room as he went round?

Also would it not be well to institute some form of "fire drill" for those living in College? or at least to draw up some stated plan of action for such an occasion, which could be pasted on one of the otherwise uninteresting walls of every bedroom in the college?

The appalling mental picture which rose in one's waking mind as necessary garments were scrambled into quickly gave way to the thought, "What is the best thing to do?" Luckily, when we arrived on the scene all danger was past, and all that remained for us to do was to go to the wards and reassure the patients, and then retire to the College to clothe, or to resume our interrupted slumbers.

Had the fire been of a serious nature, we should have been faced with the problem of whether it were best to help at the seat of the fire or to go to the wards, and the stress and excitement of such a time is not conducive to the correct solution of the problem. A short instruction as to what to do before the arrival of the Fire Brigade, after they have arrived, and to whom to look to for directions, would inevitably tend to more efficient co-operation and action should the eventuality occur.

I venture to say that not more than five men in College would know where the nearest hose and hydrant was.

One drill (or call it "a fire instruction" if you like) a month for those living in College would be quite sufficient to prevent the confusion and wasted energy that would occur as things are at present.

I am not a crank for routine, neither do I very readily lose my head, but I know that I for one should have felt more at ease had I known during the few minutes which elapsed while getting across to the medical building what I ought to do when I got there. Trusting that this is of sufficient interest to justify your attention,—I am, Sir, yours, etc.,

H. J. HENDERSON.

Guy's Hospital, S.E.,
March 18th, 1909.

Guy's Hospital Musical Society.

Dear Sir,—May I remind men, through your columns, that the Choral Sections of the above Society are providing one-half of the programme in the Society's next Concert (May 11th, 1909)? Up to the present the attendances at the practices have been very poor, and unless they improve, it will be impossible to do justice to the music undertaken. Hoping that members who see this will make an effort to attend regularly.—Believe me, yours sincerely,

DOUGLAS A. MITCHELL, Hon. Sec.

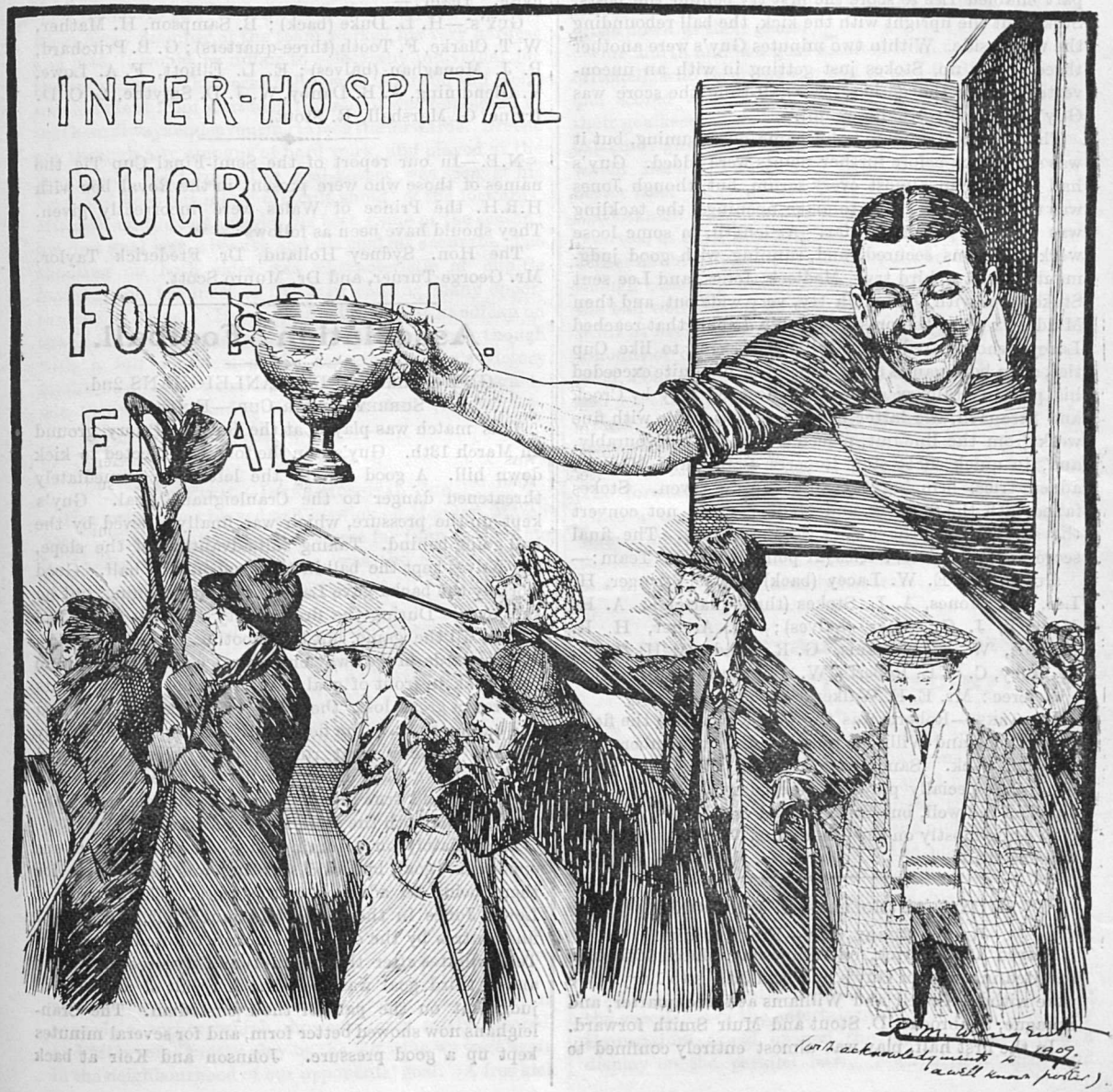
Sport.

Rugby Football.

GUY'S v. MIDDLESEX.

Final.—Inter-Hospital Cup Tie.

A good crowd, which might have been a big one had Guy's men turned up in proper numbers, witnessed this match at Richmond, on Tuesday last. Guy's were undoubtedly a much better side than Middlesex, but the latter are much to be congratulated on putting up a fine tussle, until Gabe got a nasty knock on a shoulder which



"They also serve who only stand and wait."

Chorus of Enthusiasts:—Hooray! WE've won the Cup!

had been damaged before. But from this point onwards Middlesex were a beaten side, although they continued to play for all they were worth, tackling lustily, and indulging in short rushes, but there was no method in their attack, and all their efforts to score were in vain. Before leaving this part of the report, a word of more than average praise should be awarded W. M. Penny, the old Blue. Throughout the whole afternoon he worked like a Trojan, attacking and defending wherever the fray was thickest, and he followed several try-getters over the line, in earnest endeavour to prevent the try being gained in a favourable position.

A fine opening through strong running on Medlock's part enabled Lee to score the first try behind the posts. Stokes hit the upright with the kick, the ball rebounding the wrong side. Within two minutes Guy's were another three points up, Stokes just getting in with an unconverted try by the corner. At half-time the score was Guy's, 6 points; Middlesex, nil.

The leaders dominated the game on resuming, but it was some time before further points were added. Guy's had the ball in almost every scrum, but, though Jones was trying his level best to make openings, the tackling was too keen to get very far. At length, in some loose work, Williams secured, and, running with good judgment, gained a third try. Medlock, Jones, and Lee sent Stokes over with the fourth try, very wide out, and then Middlesex eased the pressure with a dribble that reached Lacey, who cleared beautifully; he seems to like Cup ties, as in both games at Richmond he has quite exceeded his play in ordinary games. Some good play by Crook and Stranach, the latter being very noticeable with fine work from the line-out, placed Guy's again favourably, and, in quick succession, Roberts, Saner, and Medlock added tries, bringing the total up to seven. Stokes failed with the first six, and Medlock could not convert the seventh, but the angles were not easy. The final score was, therefore, 7 tries (21 points), to nil. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J. P. Jones, A. L. Stokes (three-quarters); A. H. Medlock, J. G. Saner (halves); H. Archer, H. R. Mullins, W. E. Williams, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach (forwards).

Referee: Mr. E. F. Walker.

Remarks.—Roberts was the best forward on the field, while Crook and Williams were prominent members of a splendid pack. Saner and Medlock were both good. Medlock especially played a fine game. All the three-quarters did well, but Stringer had very little to do, the play being mostly on the other wing. Lacey at full-back was excellent.

GUY'S A. (Holders) v. LONDON A.

Junior Rugby Cup.—First Round.

Played at Chiswick, on Wednesday, March 10th, and resulted in a win for Guy's by 1 goal 3 tries to 1 try. We were without Covell and Williams at three-quarter, and Sprague, Seabrooke, D. Stout and Muir Smith forward.

In the first half, play was almost entirely confined to London territory, and Tooth scored under the posts for Glendining to convert, and later Clarke scored.

In the second half, London made a more determined fight, and several times looked dangerous. However, they only scored once through an intercepted pass, whereas we scored two more tries through the agency of Pritchard and Tooth, and neither of the tries being converted, won as stated by 14—3.

Our forwards controlled the scrums throughout, and consequently the three-quarters had several chances of scoring, many of which were missed through faulty passing or by a desire to do too much on their own. Smythe played a good game and was prominent in the loose. Team:—

Guy's.—H. L. Duke (back); B. Sampson, H. Mather, W. T. Clarke, F. Tooth (three-quarters); G. B. Pritchard, P. J. Monaghan (halves); E. L. Elliott, F. A. Lowe, V. Glendining, A. B. Danby, W. J. D. Smythe, L. C. D. Irvine, G. Marshall, R. Stout.

N.B.—In our report of the Semi-Final Cup Tie, the names of those who were present in the Royal box with H.R.H. the Prince of Wales were incorrectly given. They should have been as follows:—

The Hon. Sydney Holland, Dr. Frederick Taylor, Mr. George Turner, and Dr. Munro Scott.

Association Football.

GUY'S 2nd v OLD CRANLEIGHANS 2nd.

Surrey Junior Cup.—Final.

This match was played at the Reigate Priory ground on March 13th. Guy's won the toss, and elected to kick down hill. A good run by the left wing immediately threatened danger to the Cranleighans' goal. Guy's kept up the pressure, which was finally relieved by the ball going behind. Taking full advantage of the slope, the halves kept the ball in their opponents' half. Good work by the backs gave Lakeman a fine opening, but he shot over. During the first twenty minutes Guy's had almost all the game, but the shooting was very erratic. The forwards broke away on several occasions, but were very weak in front of goal. At this stage our opponents suffered a great loss, their left full-back being injured and having to leave the field. Mitchell, splendidly fed by Greene, made a great run on the extreme left, and tricking their right half, shot hard at goal. The ball went hard and true into the corner of the net, and half-time arrived with the score 1–0 in our favour.

Immediately on resuming, the ball was taken to our opponents' goal, but wild shooting was responsible for there being no addition to the score. The absence of Lewis Jones in the centre was much felt, and several fine centres by the outside men were allowed to pass by. Ten minutes after the resumption Guy's scored again; and a third goal was scored as a result of an error of judgment on the part of their custodian. The Cranleighans now showed better form, and for several minutes kept up a good pressure. Johnson and Keir at back

were playing with splendid judgment, and spoiled several promising movements. At length, the ball came out to our opponents' outside right who, running very strongly between Johnson and Green, scored a splendid goal. The one-back game of our opponents hampered the Guy's forwards a good deal, but the fourth and last goal was not long delayed, Mitchell shooting into an open goal. In the closing stages the Cranleighans tried hard to reduce the lead, and time was called with them pressing hard. Result: Guy's, 4 goals; Cranleighans, 1.

Remarks.—It was the first time Guy's had ever reached the ultimate stage in the Surrey Junior Cup competition, and it was early seen they had made up their minds to go "all out" for the cup. In a match when every member of the team worked his very hardest and best, it would be unfair to select any individual for special praise. The work of the backs, Johnson and Keir, was excellent from start to finish, and it was refreshing to see them always endeavouring to feed the forwards. Greene got through any amount of hard work, and played at the very top of his form. The goal-keeper was seen at his best, and kept out many difficult shots; of the forwards, Mitchell on the left, played his best game of the season; his first goal was a beauty and his centres accurate. The shooting on both sides was characteristic of cup-tie football, the keenness of the men causing many opportunities to be lost. It was, no doubt, a great handicap on the Old Cranleighans losing their full-back, but though with a full complement the margin of Guy's victory might have been smaller, Guy's looked good enough to win in any case, and well deserved their victory.

GUY'S v. BART.'S.

Semi-Final—Inter-Hospital Cup.

This match was played at Chiswick on Monday, March 15th. The climatic conditions were far from favourable for football, and this, we hope, was the reason for the almost entire absence of spectators. A good game resulted in a decisive victory for Guy's, who somewhat unexpectedly defeated Bart.'s by the margin of 4 goals to 0.

We were lucky to win the toss, as Bart.'s had to kick off with the snow blowing into their faces. Guy's at once attacked, and it was soon evident that they were going to make the most of their opportunities, the forwards shooting on every possible occasion. The wisdom of this was soon seen, as about ten minutes from the kick-off Birks scored with a long-distance shot which seemed to take their goalkeeper somewhat by surprise. This reverse served to wake the Bart.'s men up a bit, and they initiated several attacks which were, however, soon broken up by our defence, who put a lot of "vim" into their work. After a short time Birks put us further ahead with a clever shot which their goalkeeper was quite unable to judge. Just before half-time Bart.'s attacked strongly, and our goalkeeper was forced to concede a corner, which, however, was safely cleared, and after some pretty play by the left wing we were again in the neighbourhood of our opponents' goal. A free kick was then awarded us, but Bastard put the ball very wide of the mark, and half-time arrived without further incident.

On resuming, play was at first chiefly confined to mid-field. Birks, who was splendidly fed by Cook throughout, got through a lot of useful work. He gave Mitchell some fine openings which the latter made full use of, and it was from a splendid centre of his that Witts was able to guide into the net, that our next goal came. The Bart.'s forwards worked their way down to our goal, but being unable to find any weak spots in our defence, could make little headway. They were poorly fed by their halves, and found the bustling methods of Bastard, Cook, and Mills, not at all calculated to help them to settle down to their game.

Our fourth and last goal resulted from a fine effort by Mitchell, who receiving the ball in mid-field raced away and scored with a magnificent shot from long range, their goalkeeper quite misjudging the ball. Cook on the extreme right frequently got away, and one of his centres, which Bart.'s managed to clear, certainly deserved a better fate.

Remarks.—Guy's are very lucky in having such capable reserves, as with Wood, King, and Hole away it seemed rather doubtful what the result would be. Rook in goal, though called upon very little, was always safe and got the ball well away from the danger zone. Bastard and Mills at back made full use of their weight and put any amount of dash into their play. The halves were all good, Cook being the pick. He did not spare himself, and got through a tremendous amount of work both in attack and defence. He fed Birks with great skill throughout. Humm played a plucky game, but showed an unmistakable tendency to wander from his position. The forwards combined together well, Jones making quite a useful centre. The passing was accurate and well timed, Birks and Mitchell especially playing together well on the left. Cook showed plenty of pace, and his centres were usually accurate.

Annual Assault-at-Arms and Gymnastic Display.

This was held on Friday, March 12th, in the Physiological Theatre, before a somewhat small, but appreciative audience. A very long and varied programme had been arranged, and the entertainment, therefore, lasted until a late hour, to which few of the audience could be expected to stop. The changes in the platform arrangements for the different events, though carried out with the utmost vigour by Mr. Oram and his helpers, necessarily occupied a considerable time, and some form of stop-gap, even a gramophone, would have been very welcome to many of the audience.

But these are matters which did not in any way affect the excellence of the entertainment provided. The Pavy Gymnasium squad opened the entertainment with a display on the parallel bars. Both in this turn, and

afterwards, in the vaulting horse and parallel bar displays, the performance of the squad reflected great credit on the men themselves and on Staff-Sergt. Gilbert (late of the 7th Hussars), their genial and indefatigable instructor. If we may single out one man for special mention, it is the neat and finished performance of J. R. Barrow-Clough, whom we shall hope to see worthily representing Guy's in Inter-Hospital Gymnastics.

The boxing events excited great interest. Spink v. Austin was the first item, followed by H. Sharpe v. West —all of the City of London Police. Three spirited rounds between Dr. Allport and Dr. Minett followed, and added local colour (happily not to the faces of the combatants); J. Freeman v. E. Bolton (City of London Police) provided the humorous turn; then A. L. Oldman (the heavy-weight Olympic champion) v. W. Hazell occupied the ring; and a plucky fight between Ogden and Salter, two well-matched youngsters, closed this part of the programme.

Prof. Felix Gravé gave a fencing bout with his pupil, G. F. Haycraft, first with foils and then with epées, and both items were all too short.

A sword exercise display by Corpls. Emery, Hodges, Hynes, and Fara, of the Royal Horse Guards, followed, and was much appreciated. Corpl.-Major Eggleton's marvellous feats of swordsmanship again delighted the audience, and the sensational concluding feat of cutting in two a sheep with a single blow was accompanied by a chorus of bleating "lambs" seated, we hope and believe, in the gallery, and not in the stalls.

The wrestling occupied a considerable part of the evening, and we give below an extended account of the different bouts.

E. H. Bacon v. S. V. Bacon.—Cumberland and Westmoreland style.—A very clever bout, in which both men showed that they possess a fine knowledge of the game. Several different falls were introduced, but the cross-buttock seemed to be the most favoured. E. H. Bacon won with 3 falls to 2.

Barratt v. Humphreys.—Catch-as-catch-can style.—Barratt soon brought his man to the mat, and getting behind, immediately applied a half-nelson, from which Humphreys escaped. Barratt next had his man in difficulties with a crutch-hold, but Humphreys showed a fine defence, and, bridging finely, was eventually able to wriggle out of danger. Barratt was soon behind again and applied a hammer-lock, following it with another crutch-hold, but this time he strengthened his hold with an arm up the back. Humphreys bridged finely, and succeeded in staving off defeat for a time, but Barratt's strength told, and Humphreys gave way, Barratt winning with a press-down after six minutes' fine wrestling.

West v. Edwards.—Catch-as-catch-can style.—These men proved to be an evenly-matched pair, both attacking in turn. West was early in difficulties with a prother-nelson, but nearly pinned his opponent with a clever elbow-roll immediately afterwards. Edwards next tried a crutch-hold with no avail, and followed it with a forward-nelson from which West escaped and got behind. West then turned his man upside down with a crutch-hold, and having obtained possession of an arm, he pressed him down, so winning in four minutes.

E. N. Bacon v. S. V. Bacon.—Cornwall and Devon.—An interesting exhibition of an ancient style. There was not much to choose between the men, both being remarkably clever in attack and defence. S. V. Bacon proved the ultimate winner of a grand struggle by 5 falls to 3.

Steadman v. Hermann were kindly sent by Georg Hackenschmidt, who was prevented by his music-hall engagements from coming himself. This was in the Cumberland and Westmoreland style, and it was obvious from the beginning that Hermann was almost unacquainted with this style. It was no surprise to see Steadman hurl his opponent to the mat as often as he did. Hermann, despite his great strength, gained only one fall.

Hewitt v. Mills.—Jiu-Jitsu.—It would be difficult, indeed, to find a better exhibition of the Japanese style of wrestling than these men provided. While Hewitt was clever in attack, Mills was just as smart in defence, and the struggle was worth going a long way to see. The men bounced about the stage like balls, and, despite the fact that Hewitt tried all manner of holds, he was unable to defeat his clever opponent, the result being a draw at the end of 10 minutes' fine wrestling.

Sergt. W. Mumford (late 16th Lancers) gave a clever performance on the slack wire. A Sabre v. Sabre duel was fought by Corpl.-Major Eggleton and Corpl. Childs (of the Royal Horse Guards); Sabre v. Bayonet by Lance-Corpl. Laing and Pte. White, of the "Artists" Corps; and Bayonet v. Bayonet by Corpl. Willis and Lance-Corpl. Byrne, also of the "Artists." The same corps afterwards gave a striking display with a Maxim gun.

The show ended with a Balaclava mêlée, which went off with great vigour in spite of the small number of spectators who were there to watch it. We regret that our clever athletic visitors, whose kindness in coming we so much appreciate, were not welcomed by an audience such as they deserved.

In conclusion, we should add that the proceeds of the display are to be devoted to the funds of the Nurses' cottage at Honor Oak Park, and express our appreciation of the large amount of hard work done by Mr. Oram, the Hon. Sec. of our gymnasium. Such an entertainment entails an enormous amount of attention to detail, and everything, from a tastefully-designed programme to the arrangements for the performers' dressing rooms, was under the personal supervision of Mr. Oram.

Birth.

SPRIGGS.—On March 2nd, at St. John's Hill, Shrewsbury, the wife of N. I. Spriggs, M.D., B.S. Lond., F.R.C.S. Eng., of a son.

Marriage.

ALLEN—HARSTON.—On January 27th, 1909, at Holy Trinity Church, Brompton, R. W. Allen, M.A., M.D., B.S., to Miss Beatrice Mary Harston, daughter of Mr. Alfred Spry Dew Harston, of Sydney, Australia.

Deaths.

BISSHOPP.—On March 3rd, at Parham House, Church Road, Tunbridge Wells, James Bisshopp, M.R.C.S. Eng., L.R.C.P. Lond., in his 87th year.

HARDY.—On the 8th March, at Aden, of sleeping sickness, on the voyage home from Nyassaland, Captain Frederick Hallam Hardy, R.A.M.C., aged 36, son of Major-General F. Hardy, C.B., York and Lancaster Regt., and grandson of the late Samuel Moore Kyle, D.D., Archdeacon of Cork.

SUMPTER.—On the 5th March, at Dorking, Eustace Wyatt Sumpter, M.B., B.S., and L.D.S., third son of the late Walter Sumpter, M.D., and of Mrs. Sumpter, Cley-next-the-Sea, Norfolk, aged 33 years.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE winter session is at an end. To those of us who are engaged in grinding the clinical treadmill this statement means nothing, except a somewhat more peaceful Smoking Room in the Club, and the chance of finding a vacant hat-peg in the College, but to those others who still pursue the pure sciences it means a month's more or less deserved holiday, and an escape from the Borough atmosphere until summer, with all its associated delights (viz., histology, exams., and sitting in the park), is once more with us. In the meantime, we will be magnanimous, and wish them all a pleasant vacation.

AT the end of the winter session it behoves us to look back on the achievements of the football clubs, and their record during the present season is a splendid one to look back upon. Three of the four Inter-hospital football trophies have been won by our teams. In Rugger, the matches of our first fifteen against the London and Middlesex Hospitals are too familiar to need recalling. Our second fifteen scored 119 points in Cup-tie matches against a meagre 6 points by their opponents, and during the whole season have only lost two matches out of a total of twenty-one.

THE Soccer teams have been almost equally successful, and the unique achievement of the 2nd XI. in winning the Surrey Junior Cup has already been mentioned in these pages.

BUT to controvert the charge which might be made that Guy's students were merely "muddied oafs," the number of our men who have joined the Officers' Training Corps might be instanced. Guy's is the headquarters of the "A" section of the medical branch of the contingent. Drills and lectures have been arranged, and the orders for the week are now regularly posted in the Colonnade. The first general parade of the London University contingent is to be held on Wednesday, May 12th, which is Presentation Day. The contingent will assemble in front of the University early in the afternoon, and after the inspection will march to Westminster.

THE patriotic play at Wyndham's Theatre, the debate on the navy estimates, the colonial gifts of "Dreadnoughts," and the rumours of European war, have all during the last few weeks brought questions of invasion and national defence very prominently before the public

mind. Conscription as a remedy has been much advocated in certain quarters. Meanwhile, the success of the Territorial Army scheme has demonstrated the possibilities of the present method of voluntary service. It would be very interesting if a census of the men at Guy's could be taken with a view to finding out how many are serving their country as volunteers in one way or another. Such service might be recorded as a regular thing in the permanent records of each student's career which are enshrined in the Medical School Office. The fountain in the Colonnade is a lasting reminder to us of what has been done in this direction by Guy's men in the past.

We note with interest that the Radcliffe Prize for 1909 has been awarded by the Master and Fellows of University College, Oxford, upon the report of the examiners, to Dr. Arthur Frederick Hertz, formerly Demy of Magdalen College. The subject of Dr. Hertz's dissertation was the Physiology and Pathology of the Movement of the Intestines.

The Residents' quarterly Going-off Dinner was held on Tuesday evening last, and was enjoyed by a large number of visitors and their hosts. A blonde, bearded gentleman—apparently a distinguished foreigner—was the cynosure of all eyes during the earlier part of the dinner; but his voice and his apt hand at bread-throwing betrayed his identity as one of our House Physicians, and no distinguished stranger, even before the gradual loss of his beard revealed features familiar to all. The oratory, on the whole, was above the average which is expected on these occasions. The speeches were interspersed with songs by Messrs. Irvine, Montgomery, and Price, accompanied by Mr. Ball. The toast of "The Visitors" was responded to by Mr. Layton and Mr. H. B. Kent, who is shortly leaving us for the West Coast of Africa. The election by the Residents of Mr. Tolhurst as their new President, and Mr. Carlyll as their Vice-President, was thoroughly popular. The late President, Mr. A. S. Morton Palmer, and his energetic colleague, Mr. H. J. Henderson, can look back with pride on their three months' term of office, for it has included the achievement of a dance which was conspicuously successful, both socially and financially, and of a Smoking Concert, the first after a five years' interval. The consciousness of these successes should do something to lessen the sorrow at leaving Guy's of the late President and Vice-President, and the other off-going Residents, Messrs. Cook, Sanford, and Syms.

While taking leave of these departing Residents, we should like at the same time to extend a hearty welcome to the new Residents who have stepped into their shoes. Mr. Stott becomes House-Physician to Dr. Hale White, and Mr. Ball to Sir Cooper Perry. On the surgical side, Messrs. Perkins and Price become House-Surgeons to Mr. Symonds and Sir Alfred Fripp respectively.

We are requested to announce that the "Goblins' Club" will meet at the Café Royal on Thursday, May 6th, at 7 o'clock. The President, Mr. R. P. Rowlands, will take the chair, and dinner is timed to begin at 7.30.

The Debating Society's Annual Dinner, which was announced for the 24th of last month, has been postponed until the summer session.

The results of the examinations for the annual prizes have recently been announced. In the examination for the Golding-Bird Medal in Bacteriology, Mr. W. H. Catto has gained the medal and scholarship, and Mr. H. I. Janmahomed has been awarded a certificate. The junior prizes are all shared between two men. Mr. W. E. Tanner has gained the Michael Harris Prize in Anatomy, the first Junior Proficiency Prize, and a Certificate in the Wooldridge Prize Examination in Physiology; while Mr. W. Stanley George received the Wooldridge Prize, the second Junior Proficiency Prize, and a Certificate in the Examination for the Michael Harris Prize. To all these prize-winners we wish to extend our heartiest congratulations on their success, which we feel confident is only a promise of greater successes yet to come in their careers.

The Residents' Theatricals Souvenir is now published, and copies will be sent out to all subscribers within the course of the next few days. Any of our readers wishing to obtain a copy by post should forward their names and addresses, enclosing half-a-crown, without delay to the Gazette Office. On the spot, copies can be bought from the College Porter, or by Nurses from the Matron's Office. The volume is an excellent souvenir both inside and out. It is most tastefully bound, and contains a mine of good things, enriched as it is by the wealth of Mr. Brookhouse's wit and Mr. Wingent's draughtsmanship. In fact, "we can confidently recommend this article," as the papers say of the patent foods.

We have received a prospectus of the University Hall of Residence at Chelsea, which was mentioned in these columns some time ago. The present hall is only the nucleus of the larger scheme which is to include the re-built Crosby Hall. All applications for residence in the existing hall should be made to the Secretary, who will give any further information desired, and the rooms may be inspected at any time on application being made to the Lady Housekeeper.

As our last issue went to press the painfully sad news of the death of Captain Frederick Hallam Hardy, R.A.M.C., was cabled from Aden. Captain Hardy was the son of Major-General F. Hardy, C.B., and was educated at Shrewsbury School previous to his entry as a medical student at Guy's. After leaving here, he saw some active service as a civil surgeon, and afterwards, in June, 1900, was gazetted to the Royal Army Medical Corps, and the following year to the King's African Rifles. He took part in the expedition up the Gambia in 1901, and was mentioned in despatches. Again, in 1902-4 he was in active service in Somaliland. A few months ago he was appointed one of a medical commission despatched by the Colonial Office to study sleeping sickness, in Nyassaland, under Professor Koch. Unfortunately, he himself contracted the disease. News of his serious condition was cabled home to his relatives, and he started home in order to undergo treatment in England. On the way his condition rapidly grew worse, and at Aden was so critical that it was decided to carry him ashore to the military hospital, where he died the following day. The life so tragically ended at the early age of thirty-six, had been usefully spent in the service of his country and of medical science, and was full of promise for the future. There is a peculiar pathos in the fact that he succumbed to the very disease which he was investigating. The name of Frederick Hallam Hardy will be added to the roll of the heroes of medical science, and the knowledge of this fact will be the only consolation to his bereaved relatives, to whom we extend our most sincere sympathy in their great loss.

Smoking Concert.

On the evening of Friday, 19th ult., a very successful revival of these one time annual functions took place, and it is to be hoped that in future they may be held at least once a year. Dr. Eason very kindly consented to take the chair, and much of the success of the evening was due to the able manner in which he officiated.

There was a large crowd present when Mr. Ryley opened the proceedings with "The Yeomen of England," and he was followed by Mr. Renton, who recited "The Dream of Eugene Aram," in his inimitable style, and, as an encore, Kipling's "Gunga Din." Mr. Peall then sang "Songs of Araby," after which the audience was thoroughly interested and bewildered by Mr. Capper. This gentleman was announced "to tie knots and do thought reading," which did not in the least prepare us for his marvellous skill in untying knots, and the eagerness and rapidity with which he threaded his way blindfolded among the crowded audience leading his medium to find sundry hidden articles. The chairman and Mr. Endean assisted him by knotting his wrists together behind his back with stout tape, and they were very little wiser than the rest of the audience as to how he managed to get his coat off, and then knock the former's cigar from his hand and tickle the latter's nose, with the knots perfectly intact and apparently untouched at the end. His later efforts at finding hidden articles blindfolded and returning them to their owners were proved to be genuine, in that he was behind a screen with his back to the audience and watched by the microscopically active eye of Dr. Eyre. The applause that followed his entertainment was a hearty tribute to his skill. Mr. Irvine

then sang "Land of Hope and Glory," and, as an encore, "The Yeoman's Wedding," both of which were vociferously chorused. Dr. J. E. Collins then proceeded to give his "Melodrama," which delighted those who had seen it before quite as much as those to whom it was new. In response to the encore demanded, Dr. Eason informed the audience that Dr. Collins had nothing more to do, and would do it, whereupon we were introduced to the "Village Glee Club," consisting of himself as soprano, a baritone, a basso, and "my brother," whose notes were of so short a wave length that they were inaudible even to Dr. Collins. Mr. Montgomery then sang "Here's Jolly Good Luck to the Girl Who Loves a Soldier," after which Mr. Endean "felt like a song" and gave us "A Clinking Toast" larded with moist humour from the occupants of his table, and in response to a demand for more gave his cleft-palate recitation of "Kissing Cup's Race." Messrs. Price, Peall and Irvine then gave audible proof of their sobriety with "I am so proud" from the Mikado.

At this stage of the proceedings the chairman found it necessary to ask those gentlemen who wanted to run an opposition show to kindly retire into the courtyard which was at their disposal, which request met with general approval, and caused sundry emulatory spirits to subside. Mr. Cairns James then told us of Dhooley's experiences with the doctors in Ireland, after which Mr. Chapple introduced us to two old friends in "Zulu Lulu" and "Mandy." The efforts on the part of the audience to harmonise these choruses, caused excruciating agony to those ears which still retained their faculty for appreciating tone. Mr. Price then gave us "Neckinger Nora," both words and music of which he only saw for the first time during the afternoon, and followed his noble effort with his Imitations of Members of the Staff, which were in many cases more true to life than their own rendering would have been. Mr. Irvine then sang "When Dull Care," after which Mr. Montgomery sang "We'd all been doing a bit," and "Does it hurt you?" Mr. Henderson, undaunted by howls of derision and cries of "sit down," then told the audience that though not afraid of them, he was "Afraid to go Home in the Dark," and the noise that the audience made when joining in the chorus semed to imply that they felt the same, and were endeavouring to put the spirits—(Of darkness of course—Ed.)—to flight. "God save the King," followed by "Auld Lang Syne," and cheers for the Chairman and the President of the Residents, brought a very successful evening to a close.

From the Gazette's Special Pathologist.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the Manager, Gazette Office, Guy's Hospital.

NOTICES.

C.C.W., Colchester.—This tumour is inflammatory in origin, and presents areas of recent leucocytic infiltration and masses of older fibrous tissue which gives hardness to it. The recent inflammatory change is most in evidence near the surface, especially around the hair follicles, and also follows the vessels between the bundles of fibrous tissue. There is no evidence of new growth, tubercle or syphilis, and we can only conclude that it is the result of some chronic infection from hair follicles.

S.W., Middlesbrough. — No tubercle bacilli are detected in this specimen (marked "E.B.") of sputum, which is comparatively non-purulent in character.

C.D.P.S., Huddersfield.—The specimen of sputum contains a moderate number of tubercle bacilli.

L.S.D., Broadclyst.—This specimen of sputum contains a considerable number of tubercle bacilli.

W.L.W.M., Huddersfield.—A smear preparation shows only a few scattered micrococci. Media inoculated with the swab remain practically sterile. Probably there were traces of antiseptic on the throat when the swabbing was taken.

S.W., Middlesbrough.—(Specimen marked "J.N.") Reaction, acid; specific gravity, 1013; albumen, 8·0 parts per thousand, or 3·5 grains per ounce; blood, vide infra; sugar, absent; urea, 1·65 per cent., or 7·22 grains per ounce. *Microscopical examination of the centrifugalised deposit.*—The deposit contains many granular, hyaline, and fatty tube casts, with immense numbers of granular renal cells, small numbers of red blood discs, and some scattered leucocytes. There are also to be seen some small crystals of uric acid and ammonium urate. There is nothing specially to note in regard to the bacteria. Tubercle bacilli have not been found, and the organisms of a gram-stained film are chiefly a few cocci, probably of the micrococcus ureæ type. The prominent characteristic is the evidence of nephritis, probably of the parenchymatous type.

PATHOLOGIST.

Notes on Local Anaesthetics in Dental Operations.

An Abstract of a Clinical Lecture by Mr. J. Lewin Payne.

A local anæsthetic destroys temporarily the sensibility of a part by interference with the functions of the peripheral extremities of sensory nerves.

Compare uses of local Anodynes and Obtundents.

The Ether Spray, introduced by Sir B. W. Richardson (1866). Anæsthesia due to rapid evaporation paralysing sensory nerve terminals. The effect is very superficial and soon passes off. Pain frequent during application and also during recovery.

Objections:—(1) Poor anæsthesia. (2) Risk of sloughing.

Chloride of Methyl, Chloride of Ethyl, Bisulphide of Carbon, Rhigolene, and other drugs have been similarly employed.

Cataphoresis, or the conveyance and diffusion of drugs into the living tissues by means of electrical currents; used to secure greater penetration of the tissues by various drugs. Tedious and not to be depended on. Now practically discarded.

Local Anæsthesia Produced by Hypodermic Injection. Introduced more than twenty years ago. Why it fell into disuse. At present time a recognised part of dental practice.

Cocaine. An Ether of benzolated ecgonine. Köller, in 1884, first suggested its use in connection with hypodermic injections. Easily soluble in water, but if boiled it splits up. $\frac{3}{4}$ gr. full dose by stomach; $\frac{1}{8}$ gr. for hypodermic use. For latter, use weak solutions: *e.g.*, 12 to 15 minims of a 1 per cent. solution.

Action. General. First stimulation, then depression. Local. It paralyses the terminations of some of the sensory nerves, particularly those conveying pain and touch.

Dangerous symptoms.—Fainting, convulsions, delirium; extremities cold and rigid, eyes staring and glassy, pupils dilated; heart feeble, pulse weak, face pallid and lips cyanosed. Respiration rapid, irregular, and shallow, followed by asphyxia and death.

Treatment of Cocaine Poisoning.—Recumbent position, warmth, fresh air, inhalations of Nitrite of Amyl, Aromatic Spirits of Ammonia, Strychnine, Atropine, and for convulsions use Ether or Chloroform.

Influence of Adrenalin Chloride on Toxic Doses of Cocaine.—Now agreed that Adrenalin does not protect organism against toxic doses of Cocaine.

Eucaine.—Close similarity to Cocaine, but solutions are stable and can be boiled; it is also less toxic, $\frac{1}{2}$–$\frac{3}{4}$ gr. can be used with safety, and 20 to 30 minims of a 3 per cent. solution makes a suitable injection. There is, however, considerable risk of swelling and sloughing from the irritation of the drug itself, and the anæsthesia is not so good as with Cocaine.

Stovaine, said to possess certain advantages, by M. Forneau, its discoverer, has been used largely in spinal anæsthesia. Less toxic than Cocaine, has a vaso-dilator instead of a vaso-constrictor action. Gangrene or sloughing at point of injection noted by several observers, and irritation of the surrounding tissues is of common occurrence. The anæsthesia is not so good as with Cocaine, and its effect disappears more rapidly.

Alypin.—Very stable, and can be sterilized by boiling. In combination with Adrenalin forms an efficient anæsthetic. Not more than half as toxic as Cocaine, but it causes irritation and damage to local tissues. Alypinoid D contains Alypin, gr. $\frac{1}{3}$ + 2 minims of the Boric Salt of Suprarenin, 1 in 10,000.

Novocaine.—The chloride of p-amino-benzoyl-diethyl-amino-ethanol, *i.e.*, (Ritsert's Anæsthesin + CH_2). It is stable, soluble in water, and can be boiled without decomposing. A powerful anæsthetic, but its action is a little transitory. When combined with Adrenalin, however, its action is as satisfactory as that of Cocaine, and much less toxic. Two per cent. solutions are best for dental operations.

Lethal dose for rabbits of Novocaine—

·35 to ·4 grammes per kilo body weight;

Whereas lethal dose of Stovaine—

·15 grammes per kilo body weight; and

Cocaine—

·05 to ·1 grammes per kilo body weight.

Novocaine is therefore seven times less toxic than Cocaine, and it causes no irritation or damage to local tissues even in 10 per cent, solutions.

The tablets used in dental practice contain:—

Novocaine, ·02 gramme,
Boric Suprarenin, ·000075 gramme,
Sodium Chloride, ·009 gramme.

One tablet dissolved in 1 cc. (= 17 minims) of distilled water will give the required 2 per cent. solution.

Advantages of Local Anæsthesia for Dental Operations:—

1. Almost, if not entire, absence of after-effects when the suitable drug is chosen.
2. No special preparation of the patient is required beforehand.
3. There is no need for the presence of another qualified man.
4. The analgesia lasts at least for many minutes, giving the operator ample time, and sparing the patient much of the after pain of an operation.
5. The apparatus required is simple and portable.

On the other hand, for general anæsthesia it is claimed:—

1. That the healing of the gums and sockets after extractions takes place more readily.
2. That the patient, being unconscious, knows nothing of the operator's efforts and manipulations.
3. That the anæsthesia itself is more reliable.

Hypodermic injections for local anæsthesia are contra-indicated (*a*) in cases where the gums are spongy, and where there is well-marked inflammation around the tooth, (*b*) in patients predisposed to syncope, and (*c*) in those worn out by debilitating diseases.

An Operation for Wry-Neck.

By R. P. ROWLANDS, M.S.

For some years I have been dissatisfied with the results of both open and subcutaneous division of the sterno-mastoid for wry-neck. These operations are inadequate, for they are nearly always followed by more or less recurrence of the deformity. It is true that prolonged instrumental after-treatment may do something to prevent this, but the apparatus is itself irksome and ugly; it is, therefore, not surprising that patients get tired of using it long before the risk of contraction has passed.

When the head is brought straight, there is a gap of about two inches in the course of the severed muscle, and this gap becomes filled with new fibrous tissue, which shortens with great force. An apparatus needs to be unusually effective and to be constantly applied to counteract this insidious power, which spoils the results of many tenotomies. Wry-neck is difficult to control by apparatus, and in this and other respects it differs materially from talipes.

The best results of division of the sterno-mastoid are obtained when the separated ends fail to unite or join only by a few strands of fibrous tissue. This leaves a useless muscle and an a-symmetrical neck, lacking the natural prominence of the sterno-mastoid on the affected side.

About five years ago I decided to try lengthening the sterno-mastoid instead of merely dividing it. In this way I hoped to get better results by minimising the formation of contractile fibrous tissue, thus shortening the duration and lessening the need of instrumental after-treatment. I also hoped to convert a vicious short muscle into a useful as well as a long one. After several years of observation I ventured to recommend my operation in *The Practitioner* for September, 1908, where a detailed description of it was published. There is no need to repeat this account, but attention may be drawn to a few important points. The first three figures illustrating this article have been kindly lent by *The Practitioner*. The first two serve to indicate the manner of lengthening, and the third shows the result four years after an operation, which was performed when the girl was eight years old.* Lately I have come to the conclusion that the least conspicuous incision is a curved one made across the affected muscle at the root of the neck just where a necklace naturally rests. The *sternal* attachment of the sterno-mastoid is severed close to bone, and the cleft between the two heads is extended upwards to the required degree. The clavicular belly is isolated at the upper end of the wound, and divided obliquely upwards and backwards below the spiral accessory nerve, which is carefully preserved. All shortened fasciæ are carefully dissected off the vessels and deep muscles, and the deformity is over-corrected by manipulation of the head. If necessary, the anterior fibres of the trapezius are divided close to the skull. All bleeding having been arrested, the two heads of the muscle are joined with fine catgut. The sutured muscle should be long enough to lie slack in the wound when the head is in the over-corrected position. This over-lengthening is necessary to counteract the various forces that tend to bring about recurrence. Such forces are dependent upon existing alterations in the spine and its ligaments, and upon the formation of some new fibrous tissue

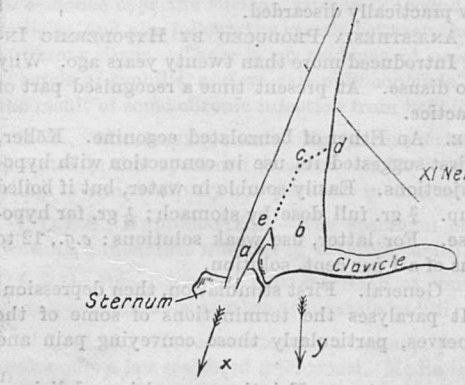

Fig. 1. *Left Sterno-mastoid.*—*a* Sternal head, *b* Clavicular head, *e c d* line of incision in muscle, *x y* directions of traction of *a* and *b*.

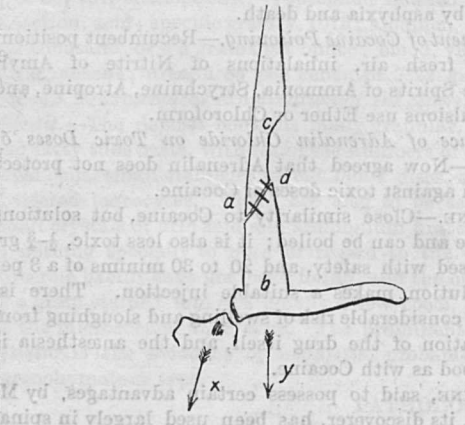

Fig. 2.

* For Figs. 3–6 see Supplement.

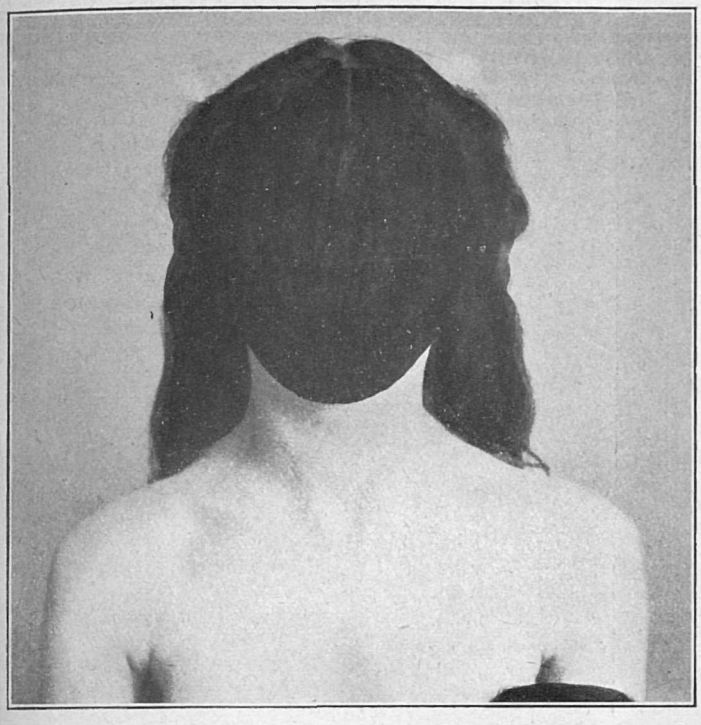

Fig. 3.—Four years after lengthening left sterno-mastoid two inches

Fig. 4.—W.R. Wry-neck. Right sterno-mastoid short.

Fig. 5.—W.R. After operation, with apparatus on.

Fig. 6.—W.R. Six months after operation of lengthening sterno-mastoid.

in the depth of the wound. It will be noticed that the axis of traction of the lengthened muscle is altered in such a way that the rotatory power is diminished (*vide* figs. 1 and 2).

The wound is accurately closed, and covered with an abundance of dressings, which are firmly applied to prevent oozing into it. A massive dressing has the further advantage of keeping the head in the over-corrected position. There is no need for the troublesome and uncomfortable plaster splint, which is sometimes used. The patient is encouraged to move the head from the fourth day, and passive movements are commenced at this time. The simple and effective apparatus shown in figure 5 is applied as soon as the wound is healed. This is worn both day and night for several months, and passive over-correction as well as active movements are continued twice daily for about a year.

The last three photographs show a little girl, four years of age, sent by Dr. Hardenberg. The operation was performed six months before the last photograph was taken. The apparatus has been discarded, but passive movements are still done. The result is perfect, the lengthened muscle being active, and the deformity completely corrected. This patient was submitted to operation at such an early age that secondary facial deformities had not become appreciable, and the spinal changes have been quite amenable to passive movements.

In late cases, permanent facial deformities have developed; thus in a recent case of a girl over twenty years of age, the face on the affected side was over half an inch shorter than that on the other side.

Moreover, bony and ligamentous changes in the cervical spine tend to prevent a perfect result in late cases, and the fibres of the shortened muscle atrophy from long-continued stretching, so that complete restoration of function becomes less likely with the advance of years. The younger the child the more perfect is the result, and the less is the need of tedious after-treatment.

I have been pleasantly surprised, however, to get a very good result in an adult patient sent by Dr. White, of Margate. In this patient the wry-neck is corrected, but the facial distortion persists.

Periodicals received.—The Hospital; The Clinical Journal; St. Bartholomew's Hospital Journal; The Prescriber; St. Thomas's Hospital Gazette; Charing Cross Hospital Gazette; U.C.L. Union Magazine; Nursing Times; South African Medical Record; The Medical Review.

Dental Notes.

On Friday, March 12th, the last meeting of the Dental Society for this season was held in the Physics Theatre. In the absence of the President (Mr. J. E. Spiller), Mr. H. P. Aubrey took the chair.

Casual communications were invited, and Mr. Shepherd exhibited impressions of a dog's mouth showing a fibrous epulis in the lower right canine region. The specimen was very kindly lent by Mr. J. Roberts, who stated that the growth was removed once, but recurred a few months later. A section, however, showed that it was not malignant, but fibrous.

Mr. Doubleday showed a specimen of sarcoma of the mandible, removed from a young girl by Mr. Fagge. The right side of the mandible was involved, and so, at the operation, a piece was removed from just below the condyle to the canine tooth. A splint has been inserted to keep the rest of the mandible in proper position during recovery.

Mr. Aubrey then called upon Mr. Edmonds to read his paper on "The Application of Photography to Dentistry." Owing to the bad cold from which Mr. Edmonds was suffering, Mr. Bull very kindly read the paper, while Mr. Edmonds demonstrated afterwards. The paper described the various uses of photography for dental purposes, with special emphasis on micro-photography. Slides were shown of photos taken by Mr. Edmonds of regulation cases, and specimens of odontomes. Mr. Lewin Payne very kindly spoke about the odontomes, giving their history and origin. Mr. Edmonds then demonstrated the methods of taking photographs of microscopical specimens at great length. Mr. Aubrey then said a few words, principally with regard to the faking which is possible with the camera, and also showed two interesting photos to illustrate his remarks. Discussion was then invited, and Mr. Lewin Payne and Mr. Dowsett spoke, and Mr. J. Roberts asked a few questions. The subject was absolutely original, and was one which few of the men present had studied, so that there was not much opportunity for discussion.

Mr. Aubrey then thanked Mr. Edmonds for his interesting paper and demonstration, and also Mr. Bull for reading the paper. He then announced that the Annual General Meeting of the Society, would be held on Thursday, May 20th, after which the meeting was declared closed.

Papers by Guy's Men.

Fortescue-Brickdale, J. Mark, M.D. Oxon.: The Heating of Milk as it Affects the Nutrition of the Infant.—*Bristol Medico-Chirurgical Journal* for March, 1909.

Handley, W. Sampson, M.S. Lond., F.R.C.S. Eng.: A Lecture on the Natural Cure of Cancer.—*British Medical Journal*, 6th March, 1909.

Hale White, W., M.D. Lond., F.R.C.P. Lond. A Clinical Lecture on Venesection.—*Clinical Journal*, 31st March, 1909.

A Bottle of Medicine.

The Sixpenny Surgery is one of three in a long mean street that branches off a well-known London thoroughfare. It is a shop converted to its present use. The lower half of the window has been painted over, and in the middle of the reddish-brown expanse the word SURGERY stands out in large white letters. Further down is the announcement—

Hours { 10 to 12 / 7 to 9

The side door holds the tarnished brass-plate of Dr. ———. At the "hours" named it stands open, revealing a narrow passage with a glass door leading into the front room. A huge red lamp hangs over the outer door, and during the evening "hours" shines with doubtful brilliancy through the dirty red glass. A grimy boy hovers between the waiting-room and the street door. To-night the red signal is alight, and the upper part of the long window is illumined with the flare of a hanging gas-jet.

Sundry patients have been admitted by the small boy. A row of them are already seated upon a long bench, and wooden chairs hold two men to whom chair-backs seem a vital necessity. The chairs and the bench are the only furniture. On the dingy walls two brave generals guard either side of an insurance company's large almanack. A baby cries feebly beneath its mother's shawl. A burly man with a red nose wheezes aggressively. Two pale consumptives sit at one end of the bench, drawn together by a mutual cough. The others—limp, worn and hollow-eyed—are the victims of the stress of a big city. Every now and then an inner door opens to allow the exit from the consulting-room of a patient with a bottle. It is for this bottle each has come. Everyone gets it, no matter what ails the applicant. "Stop the drink" might often be in theory all sufficient from the medical point of view, but without that bottle—well, certainly no sixpence would be forthcoming.

A peep inside reveals a middle-aged man seated in a ricketty chair at a leather-covered table. His hair is grey, his face pimply, and a ragged moustache tops the stubble of a two-days' beard. A seedy frock coat and frayed wristbands, approximating in tint to his ill-fitting collar, complete the picture of one of the wrecks of his profession. Very little is asked of the patient opposite him before the doctor rises from the table and stands in front of a few shelves crowded with large bottles, which represent the medicinal resources of the establishment. He seizes a six-ounce bottle from a corner, jerks in something from one of the large bottles, fills it up with water, puts in a cork—which he has bitten—and, clapping a directed label upon it, hands it to the patient in return for sixpence.

Conversation is distinctly limited in that inner room. "Please I want a bottle o' medicine for a corf," is the usual opening in winter. In summer, when fruit is rotting on the street barrows, other symptoms rapidly describe the disease. If the doctor is the first to speak, he cuts matters shorter still. "Cough?"—"Pain where?"—"Sick after eating?"—"Drink much beer?" etc. No words are wasted over that bottle of medicine at the Sixpenny Surgery.

To the question, "Does it pay?" the answer is "Yes." In such a surgery the doctor makes from three to five pounds a week after paying expenses, and there is no night work. The patient is satisfied, because, unlike the "Orspital," the surgery is "round the corner," and—the greatest boon of all—there is hardly any waiting. He pays his sixpence cheerfully, and thinks it nothing unusual when, later on, in a neighbouring place of refreshment, he espies his "physician" regaling himself in the "private bar," where he is an ever-welcome *habitué*.

FREDERIC VICARS.

Guy's Hospital Debating Society.

The last meeting of the session was held on March 20th, Dr. E. I. Spriggs in the chair. Although the attendance was small, an interesting debate arose on the motion proposed by Mr. T. D. M. Stout, "That in the opinion of this House, the preliminary science subjects are given undue prominence in the Medical Curriculum." Mr. Heaton opposed the motion, and Messrs. Ryle and Mullally supported the motion and opposition respectively.

In the discussion which ensued, many of the few members present spoke, and the Chairman contributed some valuable remarks to the debate.

When the motion was put to the House, it was carried by 9 votes to 6.

Traumatic Heart Disease and Compensation for "Accidents."

CLINICAL LECTURE BY Dr. SHAW.

Every now and then some great discovery in pathology or in therapeutics leads us to change the point of view from which we regard certain diseases, in respect of either diagnosis or of treatment.

Recently there has been a social development, not a scientific discovery, which has led us to consider the causation of many diseases from a somewhat altered standpoint. I am referring to the tendency that there is now for all sorts of people to be insured against the results of accidents. In consequence of this habit, the possibility of an injury being the cause of any disease is much more before us as a profession now than it ever was before. The growing prevalence of insurance against accidents is probably responsible for what was to me a novel experience. Just before Christmas there were lying in adjacent beds under my care in Addison Ward two patients suffering from heart disease, each of whom attributed the symptoms from which he was suffering to an accident. This exceptional occurrence led me to choose as my subject for lecture to-day traumatic heart disease. And in introducing to your notice the question of traumatic heart disease by relating to you some of the particulars about these two patients, I propose to take the opportunity of offering for your consideration a classification of traumatism of the heart generally, then to draw your attention to some of the difficulties by which the profession which you are about to enter is assailed owing to the spread of insurance against accidents, and finally to ask you to consider some possible means of avoiding some of these difficulties.

I.—*Traumatism of the Heart.*

There are three very different conditions in which injuries to the heart occur. First, there are the conditions in which gross and obvious injuries to the heart result from external violence. A man is cycling with his machine out of control; he meets and collides with a cart; the shaft penetrates his thorax and causes immediately fatal results. Other examples are those in which the buffer of a train breaking the sternum and the ribs leads to the heart being seriously injured by the bony fragments. Bullet wounds and stabs of the heart are also in this section—conditions, perhaps, of more interest, because they may afford an opportunity of surgical treatment if the injuries are not too extensive. Another interesting injury to the heart due to external violence is worthy of your consideration, inasmuch as you may yourselves be responsible for causing it in attempts to aspirate the pericardium.

The essential feature of this group of cases is the obvious external violence. The patient seldom survives to present symptoms of heart disease.

The second group consists of cases in which there is a disruptive lesion of the heart, which is certainly not due to any external violence. The patients are found dead, and the muscular wall, generally of the left ventricle, is torn across, and the pericardium is full of blood. In such cases, as a rule, you would find obvious disease of the muscle of the heart, fibroid or fatty, which explains its rupture on such slight provocation. Every now and then it will not be quite clear that there is any obvious antecedent disease, although it seems almost certain that a muscle must be diseased before any internal pressure resulting from the ordinary circulation of the blood would cause it to rupture.

These may prove very interesting cases, because questions may arise as to whether the relatives of a person found dead under such circumstances are or are not entitled to receive compensation on the ground that he has died as the result of an accident. Certain it is that in some of these cases the patient is found dead in bed, which makes it unlikely that a violent strain is necessary to produce such a rupture. At other times this condition has been found in the case of a man who was exerting himself to his utmost immediately before his death.

I come now to the third group, to which, perhaps, the title "traumatic heart disease" is alone properly given. Introducing you to this group, I will mention the few salient features about four cases which have come under my observation.

Case 1.—A young tram conductor, several years before admission, had had rheumatic fever, but believed himself since to have been in perfect health. One night two drunken passengers had to be expelled from his car. He struggled severely in throwing them out, and when he got home, a little later, feeling rather exhausted by his efforts, he noticed a curious noise in his chest, and, calling his wife's attention to it, she also was perfectly certain that she could hear a loud noise in his chest which she had never heard before. He came the next morning to the

hospital, and was found to have an extraordinarily marked musical murmur, diastolic in rhythm, all over the precordium. He was not suffering from any marked cardiac symptoms beyond that. Here was definite aortic regurgitation, apparently produced or increased by violent struggling; and we imagined that in the struggle he had torn or detached one of the semilunar aortic valves, and was consequently suffering from aortic regurgitation, at present thoroughly compensated.

Case 2.—A painter, 50 years of age, who at the age of 20 had syphilis, and a few years later rheumatic fever, believed himself to be in perfect health from that time until a few weeks before admission. When painting something high up, he slipped, fell, saved himself with a great effort as he fell, and immediately had cardiac pain and breathlessness. When admitted to the hospital, we found that he had aortic stenosis—a well-marked systolic thrill all over the right of his sternum—and distinct evidences of cardiac failure. In his case we imagined that his hypertrophied heart, which resulted from his aortic stenosis, and which had done its work extremely well for many years, was suddenly dilated as the result of the violent effort which he put out.

In both these cases you will see there was pretty clear evidence that the patient had already chronic endocarditis, and that the alleged injury was an injury to a diseased organ.

Case 3.—A sea cook, a little over 20 years old, perfectly well as far as he knew, and telling us that he had never had a day's illness in his life before, was on a voyage from London to Hamburg. Lifting a cauldron of soup off the fire, the ship gave a sudden lurch, and, desperately afraid that the soup might upset and scald him, he put out all his effort to prevent this. He saved it, but immediately suffered from a severe pain in his heart, and extreme condition of syncope; so that he was laid flat on his back, was kept on his back until the boat reached port, was immediately carried to the hospital at Hamburg, and remained there for many weeks, until it was thought safe for him to travel to England, when he came to the Out-patient department at Guy's Hospital.

In his case we assumed, quite wrongly, as I shall show you in a moment, that his tremendously violent effort had ruptured a *healthy* aortic valve; and, under this impression, this case was shown at the Clinical Society. Years afterwards, I met this case again in the hospital as an in-patient, and he then told me that, after my careful inquiries about his previous health—which, you remember, I thought established the fact that he had not had a day's illness in his life before—he went home, and, inquiring from his mother, he was told that he had a bad attack of St. Vitus's dance as a small child, which he had quite forgotten. This case, therefore, is strictly analogous to the other two. I was wrong in assuming that it was an example of the rupture of a healthy valve. There can be little doubt now that this man's valve was affected by his chorea, and that his great exertion ruptured a diseased valve.

Case 4.—A former pupil of mine was unwisely touring with a heavy motor car in a very hilly district when his car stuck on the middle of a hill. Still more unwisely he took an undue share in pushing the car to the top of the hill. He felt that it was an exertion such as he had never put out before in his life, and wished that his car were lighter. When he got to the top of the hill there was nothing for it but to lie down; and from that day for several weeks he was on his back seriously ill. When I saw him some months later he had recovered, and his heart was perfectly normal; but the history of the case suggests, I think, that he did seriously and acutely dilate a normal ventricle.

So with regard to traumatism of the heart, you will recognize that the difference between the cases in this third group and the cases in the former groups is that these latter patients survive the injury which is some sort of fierce strain and have time to suffer from symptoms of actual cardiac disease. Please recognize that there are two forms of injury in this class of case, laceration of a valve and great distension of a cavity, and that there are two classes in which these injuries occur, one with antecedent disease and one without antecedent disease.

One of the difficulties of a clear appreciation of the frequency with which the rupture of a healthy valve occurs is due to the fact that if the patient survives the accident for even a few weeks, when death ensues, chronic inflammatory changes will have taken place in the valve, even though before the rupture it was perfectly healthy.

Another difficulty in establishing, even by pathological evidence, the existence of traumatic heart disease is due to this fact: that rupture of a diseased valve—perhaps I had better not say rupture—detachment, or separation of a diseased valve may take place as the result of ulceration, apart from any severer strain than is naturally taking place in every heart in which blood is circulating.

Professional Difficulties in relation to Accident Insurance.

I now come to the second part of my lecture, and propose to speak to you of some of the professional troubles which are connected with this increasing tendency of the community to insure against the result of accidents. I would have you recognize that this habit is putting upon the profession a totally new class of work—a class of work for which no courses of instruction have been laid down, to which no compulsory lectures are assigned, and which, as far as I know, is not dealt with in any of your too numerous examinations.

Let us look for a moment at what are the existing branches of professional work. First of all, there is our duty to seek out the causes of disease and methods of alleviation and prevention. That is the branch of work which is always being carried on by the medical scientist, whether he be a mere physician striving in his laboratory—which is his ward—or whether he be a special pathologist working under more fortunate circumstances, with proper assistance in his endowed laboratory. The second branch of our work is that of endeavouring to persuade a reluctant public to put into effect the methods of prevention of disease which we have discovered. This falls to the lot of the medical officer of health. The third function of the profession, and hitherto the last, is to cure the patient. This is the duty of the great body of the profession, be they general practitioners or consultants. But now we have a fourth duty, a totally new duty, put upon us. This is, to hold the balance even between conflicting pecuniary interests, the just settlement of which can only be determined by medical knowledge. It is a thing we have not bargained for, and a thing that we are not at present very skilful at performing. It becomes our duty to decide, for example, when a man is insured against the results of accidents and becomes ill, whether it is fair or unfair for him to receive the benefits of his insurance. The difficulty of deciding this, I think, may already have been made clear to you from the cases which I have related of traumatic heart diseases. Let me give you a few other illustrative cases which have recently come under my notice.

Case 5.—A butler, fully insured by his master against the results of accidents occurring in his occupation, is endeavouring to perform his special duty for his master of uncorking for him a special bottle of port. Very anxious not to break the crust—I think that is the right expression—but finding the cork extraordinarily tight, he put out great force, and just as the cork came out he felt a severe pain in his right iliac fossa. Within a day or two he was operated upon for gangrenous appendicitis.

Is that a case in which it is fair for the insurance company to have to pay the insurance money? Is that a case in which it is fair for the employer to be deprived of the advantages of having insured his servant against the results of "accidents"?

Case 6.—A labourer was digging on a plot of land. It was 5 o'clock on a winter afternoon. His work was over. He walked home, had his tea, and, while sitting down after tea, suddenly had a violent pain in his head, and in twenty-four hours was dead from cerebral hæmorrhage.

Was that an accident resulting from the heavy strain of digging in the ground? Is it fair that the insurance company should pay for the death of this man, or is it fair that this man's dependents should be deprived of the advantages of his insurance?

Case 7.—A factory hand was taking part, as he often did, in moving a piece of iron. He felt a pain in his back, but took no notice of it, and went on moving other pieces of iron. He was not quite so well the next day, but went to work. The following day he had pins and needles in his toes, and in three days was lying in a London hospital with all the symptoms of acute myelitis.

Case 8.—A gardener was walking along, pushing a mowing machine in front of him. He suddenly stumbled, and, in trying to save himself, "ricked his back." From that day forth he was a wreck from neurasthenia. He thought he had all sorts of diseases and pains everywhere. There could be no doubt that he had neurasthenia.

Was the neurasthenia the result of the accident? Was it not rather the result of the fact that the law provides that his master shall compensate him for illness produced by accidents?

Case 9.—A hunting man had influenza. He was recovering from it, and his wife entreated him "not to hunt to-day." He did hunt that day, and when so doing was thrown, soon scrambled up again, went on, and finished the run. Next day he was not so well. The day after he had a rigor, and in three days he was dead of acute pneumonia.

Was his acute pneumonia the result of accident? Was it fair that the insurance company, restricting its policy to the direct results of accidents, should have to pay?

Now, gentlemen, why I ask you carefully to consider this question is because it seems to me to be likely that if this work of deciding these pecuniary interests is carried on, as it is carried on at present, it must lead to a degradation of the profession in the eyes of the public.

A lay authority in the insurance world frequently consults me on such subjects as I put before you to-day. He says, "Do you think that such and such a condition was due to the accident?" "No, I certainly do not." "Do you think any medical man of repute can be found to go into the witness-box and say that he thinks it was the result of the accident?" "Yes," I say; and he shrugs his shoulders with an expression which shows what he thinks of the medical profession. But he does not understand the position. He does not know how difficult it is for us; how impossible sometimes to estimate which of the numerous possible causes of any disease is the dominant one in an individual case. He is accustomed to legal decisions which are made upon authority, and not to medical decisions, which are often necessarily indefinite. My friend thinks, when he extracts from me the fact that other members of the profession will swear to an opinion different to that which I have expressed, that this is an indication of the fact that the members of the medical profession will accommodate their opinions for the purpose of sale. Of course there are black sheep in every fold. But the striking differences of opinion that may be held by honourable men are inherent to the nature of the cases. Nevertheless, the fact that it is constantly happening, that one medical man is giving evidence on one side, and another man is giving directly opposed evidence on the other side, is in my opinion having a very deleterious effect upon the high regard in which the profession is held. Not only so; the present method of settling these cases is causing a most unnecessary expense to the community.

Remedies.—Now let us consider possible methods of reforming this uncomfortable position for the profession. The first one I should like to urge upon you is this, that we, as members of the profession, should insist that in this matter we will be arbitrators and not advocates. I have the highest possible respect for the legal profession, and am certain that it is in every particular as honourable a profession as that of medicine; but I am convinced of the fact that the unfortunate necessity which compels members of the legal profession to act as advocates, and to defend people against charges which they know to be true does, in the eyes of an undiscerning public, somewhat lower the esteem of the profession generally. We do not want to be advocates. We, as a medical profession, if we are called upon to perform this new function of seeing fair play between different pecuniary interests, should take the position, if we can, of arbitrators and not advocates.

It should not be impossible to set up a special tribunal to deal with these questions in which independent medical men with special experience should act in a judicial capacity as arbitrators or assessors to a legal arbitrator. Before such a tribunal, medical evidence should be restricted to questions of fact observed by medical men actually in charge of the patient.

But there is another means whereby we might possibly lessen the complexity of the problem to be arbitrated upon in many cases. The problem in most cases now is how far has the traumatic element anything to do with the condition? Cannot we persuade the insurance companies; cannot we persuade the Government; cannot we persuade the people generally, that while they are about it, insuring against the result of accident, they should, instead, insure against invalidity of all sorts? It is not often, though no doubt it is sometimes, a difficult thing for a medical man to say definitely that this man has a disease and that man has not a disease, but it is constantly a very difficult thing to say whether the disease from which any man is suffering, or has died, is due to a specific cause or not. If the hunter, for instance, is insured against death and not against death from accident, it does not require extraordinary skill on the part of a medical man to certify that he is dead—a duty, by the way, which under existing circumstances is imposed upon us by the State without remuneration.

That insurance against invalidity from all causes is much needed in the case of nearly all bread-winners none can doubt. If the medical profession in a desire to deprive itself of unnecessary work helps forward this movement, its action will be entirely in keeping with its best traditions. We are always working hard to add the whole profession to the ranks of the unemployed.

There is another professional difficulty raised by this habit of insurance which is deserving of your careful attention. It seems right that we should recognize that as a profession our pecuniary relations are necessarily somewhat different to persons who are insured to those who are not.

In the days before insurance became common, any bread-winner who met with a serious accident which incapacitated him was at once, in the eyes of the profession, probably a suitable subject for charity, and his presence in a

hospital passed without question. But when the bread-winner is definitely insured against the results of his accident, or can claim compensation covered by insurance, it becomes a very doubtful question whether the medical profession should give their services without payment in order to save the insurance companies from the responsibility of paying their agreed liabilities.

This is, however, a complicated subject on which I have not time to enter now, except to say that, like the other professional difficulties to which I have already referred, it can only be wisely dealt with after prolonged discussion and careful action.

And now one or two words as to what steps you individually can take in order to meet these difficulties. I want you to appreciate that no amount of the highest possible individual professional uprightness will really enable you to do much in meeting these and many other difficulties which are assailing, or are likely in the near future to assail, the profession.

The recently issued report of the Poor Law Commission indicates the possibility of social changes which may profoundly alter the relations of the profession to the State.

All our professional difficulties become less the more careful we are that each of us shall always be actuated by the highest professional motive—that is to say, that in all our dealings we shall have an absolutely single eye to the advantage of the patient and no regard whatever to our own personal interests. But this will not enable us entirely to meet the collective difficulties of the profession.

It can only be by concerted action of the profession as a whole that such modifications in procedure as I have been suggesting can be carried out. You are doing your little part at present; you are paying fees to universities and to examining bodies to whom you may look in the future, perhaps, for some help in organizing the affairs of the profession. Later on you will pay a fee to the Registrar of the General Medical Council, and you may then look to the General Medical Council, perhaps, to secure such reforms as the future may make necessary. But I think that after some experience you will have to admit that neither the universities, the examining bodies, nor the General Medical Council, can do much for you, because, even if they had time to spare from their special duties, they have no recognised means of determining what are the wishes of the profession. As soon as you are qualified it becomes your duty to enrol yourself as a member of some of the many societies which are formed amongst medical men in order that they may together discuss concerted action to enable the profession in the most effective way to carry out its high mission and to maintain its worthy reputation.

And here may I suggest that of the various societies that you will have the opportunity of joining, perhaps the British Medical Association is one most deserving of your attention, from the fact that whereas, while taking part in the local work—social, scientific and political—of your own Division, you will, through the central organisation, be brought into contact with Divisions all over the British Empire. If you recognise the limitation of your individual effort you will appreciate the great advantage of belonging to a body which is in touch with your professional colleagues all over the world.

You will be told by some, perhaps, that you will find in the Association a narrow spirit of trade unionism. On the contrary, I believe you will recognise in it, as I have certainly done, the high ideals of a professional guild endeavouring to maintain in each of its members the best professional traditions.

Join the British Medical Association in the same spirit as many of you are now joining the officers' training corps of the Territorial Army, not for what you can get out of it, but for the opportunities it will give you of serving your profession, and, through your profession, the public. Be actuated by the motto of the hospital, "Dare quam accipere."

Change of Address.

P. H. Gardner, L.R.C.P. Edin. and L.M., M.R.C.S. Eng., from Five Ways, Torquay, to Shaftesbury House, Ilfracombe.

A. Hammond-Smith, Esq., L.D.S. Eng., from 23, Henrietta Street, Cavendish Square, W., to 70, Wimpole Street, W. Telephone 3854 Mayfair.

David Thomson, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., from The Towers, St. Martin's Road, Upper Knowle, Bristol, to "Glencairn," Walsingham Road, St. Andrew's, Bristol.

P. H. Ward, L.R.C.P. Lond., M.R.C.S., from the Ayrshire Mine, Lomagunda, S. Rhodesia, to N'dola, N.W. Rhodesia, S. Africa.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Correspondence.

To the Editor of Guy's Hospital Gazette.

Fires and Fire Brigades.

Dear Sir,—I was forcibly reminded, on reading your Passim notes on the fire at Guy's, of a somewhat similar occurrence six years ago. "Astley Cooper's" chimney caught fire about 11.30 p.m., and soon transformed the innocent chimney-pot into a very fair imitation of a blast furnace. I remember trying to persuade the Acting Superintendent that his correct course was to get on the ridge of the roof with a wet blanket and prevent the spread of the fire. I remember also that he failed to see the utility of my suggestion and preferred to remain in the seclusion of the photographer's room while the chimney vomited flames and sparks.

Immediately after the fire, which fortunately was without incident, the suggestion was raised that a Hospital Fire Brigade should be formed from men in the College. But it was then found that the uncertain tenure of most of the Maze Pond dwellers, combined with a curious disinclination to do anything that had not been done by previous generations, was an effectual bar to the project, which died almost as soon as it was born. There is no doubt, however, that a little fire instruction would be very useful, if it served only to impress upon the amateur brigade the necessity of at once summoning the aid of their professional brethren. The wisest policy, on the discovery of any fire, however trivial, is at once to give the alarm to the Council Fire Brigade. Down here we have an efficient little Fire Brigade with modern appliances, and the great bulk of the work done in the year is on small fires, which might or *might not* have been successfully coped with by the people on the spot. Only the other night I saw a tram-conductor stop his car and run to a telephone because he had noticed smoke oozing out of a lock-up grocer's window. There was no sign of fire, other than the smoke, from the exterior, but I followed the brigade into the house, where there were the beginnings of a good burn out. Four minutes' work sufficed to stop the whole thing, but if it had been left for another ten minutes the whole place would have been in a blaze.

By all means have a Brigade, Mr. Editor, but tell off No. 1 to run to the fire alarm first of all at the earliest sign of mischief.—Faithfully yours,

Salford. "BALLADMONGER."

An Appeal.

Dear Sir,—I am making a very earnest appeal on behalf of my friend James Dutton (son of the late Mr. James Dutton, Surgeon, Hammersmith, and brother of the late Edward G. Dutton, Plymouth, who were both at Guy's, the family having been in the medical profession for considerably over 100 years), as he has lost every penny of his inheritance through the speculations of the trustee (since dead), and as he is quite incapable of doing anything whatever to earn his own livelihood, through being what the doctor calls "simple-minded," it is a particularly sad and distressing case. His married sister has for some time now been doing all she possibly can for him, but as she also lost all her money from the same cause, and her husband is in very poor health, she cannot help her brother any longer, and so I venture to hope that those who have known anything of the family, and also the medical fraternity generally, will make as generous a response as possible under these very sad circumstances so as to get my old friend a small annuity.—Yours faithfully,

H. T. H. BEDWELL.

45, Cobourg Road, Montpelier, Bristol,
18th March, 1909.

[We shall be glad to receive subscriptions in support of this fund, which will be duly acknowledged in these columns, or they may be sent direct to Mr. Bedwell, who will be pleased to supply any further information with regard to the case.—Ed.]

Notices.

The Gull Studentship.

The Gull Studentship in Pathology and allied subjects is vacant. The Studentship is open to candidates under thirty years of age who have studied in the Medical School of Guy's Hospital, is of the annual value of £150, and is tenable for three years. Further particulars may be obtained from the Secretary of the Board of Electors, to whom application must be addressed at the Office of the Medical School not later than April 17th, 1909. The elected Student will be expected to commence work on May 1st, 1909.

Appointments.

Civil.

Ayre-Smith, Alan, M.D., B.S. Durh., has been appointed Honorary Surgeon to the Sunderland Infirmary.

Pare, J. W., M.D., C.M. Edin., L.D.S. Eng., has been appointed Dental Surgeon to the Hospital for Diseases of the Throat, Golden Square, W.

Payne, J. L., Assistant Dental Surgeon, Guy's Hospital, has been reappointed Examiner in Dental Surgery at the University of Leeds.

Ward, P. H., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer in the Administration of N.W. Rhodesia, South Africa.

Naval.

Fleet Surgeon W. Bett, R.N., has been appointed to the *Sutlej*.

Late Ante-partum Haemorrhage.

A paper read before the Derby Medical Society
By H. T. Hicks, F.R.C.S. (Eng.)

Ante-Partum Hæmorrhage has been the subject of many hotly-contested debates in the past, and there still seems to be a difference of opinion with regard to the best form of treatment in certain conditions.

The history of midwifery is a deeply interesting subject, and, no doubt, Hippocrates and his followers knew more about this branch of medicine than any other. This is only what might be expected, because the mysteries of conception, pregnancy, and labour must have been food for serious thought and speculation, ever since the time of Adam and Eve. Hippocrates made some remarks on ante-partum hæmorrhage, and although they practised version, even in those days, for transverse presentations, they did not definitely employ this form of delivery for all cases of doubt until the time of Smellie.

One can quite well see that sepsis carried off far more patients suffering from ante-partum bleeding than the actual hæmorrhage itself, and indeed this may be said to be true of to-day. Smellie may be looked upon as one of the fathers of modern midwifery. He was professor in Edinburgh in 1780. He recommended dilatation of the cervix with the fingers, rupture of the membranes, and internal version as the best treatment of ante-partum hæmorrhage. The mortality was very high, being somewhat about 50 per cent.

Very little progress was made until Braxton-Hicks introduced bipolar-podalic version as the best means of treating all forms of ante-partum hæmorrhage, and especially placenta prævia. No doubt the introduction of antiseptics and bipolar-podalic version are responsible for the reduction in the mortality of this once fatal condition. I have had to deal with a great many cases of ante-partum hæmorrhage during the last six years, and I have tried to form some settled ideas as to the merits of the different forms of treatment which are recommended by various authorities.

We will first consider external accidental hæmorrhage and placenta prævia, and leave concealed accidental bleeding till later, because this form differs widely from the external variety.

In any given case of external bleeding the first point to consider is whether the blood is coming from the placental site or not. Carcinoma of the cervix is not an uncommon complication of pregnancy, and I remember a case—which was at first thought to be one of external accidental hæmorrhage—where the bleeding really originated from a ruptured varicose vein in the posterior vaginal wall.

Having decided that the placental site is at fault, the next thing to settle is whether the case is one of placenta prævia or of external accidental hæmorrhage. In about 80 per cent. of cases of placenta prævia the cervix will be found already open enough to admit a finger, and a marginal or central placenta will be felt. There will be little difficulty in making a correct diagnosis under these circumstances. If the placenta is situated laterally, it will not be felt, but the case may be treated as one of accidental hæmorrhage.

When the cervix is not dilated there may be great difficulty in coming to a definite decision as to whether the placenta is situated normally or not, and I do not believe it is possible to be certain unless the finger can be thrust through the cervix.

The diagnosis is of great importance, because it is justifiable to adopt palliative treatment in accidental hæmorrhage, whilst for placenta prævia there is no such treatment. When once a diagnosis of placenta prævia has been made, labour should be induced, and the patient should not be left until the placenta and child are safely delivered.

There are several points which may suggest placenta prævia, but, at the best, these are mere suggestions which will indicate nothing positive. A malposition of the fœtus, or a high position of its head, or the possibility that the doctor may persuade himself that he can feel the placenta through the anterior or posterior fornix of the vagina, will not be sufficiently conclusive evidence one way or the other. The character of the bleeding is, however, of importance. Recurrent hæmorrhage is strongly suggestive of placenta prævia, and I do not think one will often be wrong in making a diagnosis of placenta prævia if there have been two or more attacks of bleeding with definite quiescent intervals.

With regard to the treatment, there is not a vast difference in the main principles of delivery in any variety of external ante-partum hæmorrhage, but there are several very important points which must receive special attention. As said above, a case of placenta prævia should never be left, while it is always justifiable to treat a case of external accidental hæmorrhage on the same lines as a threatened miscarriage.

If the hæmorrhage is not severe in accidental hæmorrhage, it may be possible to tide the patient over the acute stage, and thus obtain a viable or full term child without much anxiety for the future labour. In such cases complete rest, opium and small doses of ergot should be prescribed.

In the case of placenta prævia the conditions are very different, because the bleeding has to be faced, and the earlier on in the pregnancy that labour is induced the less will be the hæmorrhage. Placenta prævia at the sixth or seventh month is a tame affair to what it is at full term.

As a rule the more centrally the placenta is situated the earlier the bleeding begins. This is due to the fact that the more "prævia" the placenta, the earlier it spontaneously induces labour; that is to say, a quiet, inert, painless expansion of the lower uterine segment takes place, which may take weeks to effect dilatation of the cervix. This, of course, explains the fact that in so

many cases of placenta prævia the finger can be pushed through the cervix.

Let us first of all take a case in which the os is not dilated: If the bleeding is severe, or there have been two or more distinct attacks of hæmorrhage, it will be best to set labour going, for if the bleeding is severe, it matters little as to where the placenta is situated, and if it is recurrent, the case is probably placenta prævia. The first thing to do is to dilate the cervix. There are several methods of doing this which resolve themselves into two groups, namely: forcible and passive dilatation.

With regard to forcible dilatation, there is never any reason to carry the expansion any farther than will admit one, or at the most two fingers, an operation which can be done without any risk of laceration. Further dilatation should be brought about by passive means only.

Of the forcible dilators we have (1) the fingers, (2) Hegar's, (3) mechanical instruments, like Bossi's, and (4) tents. The gloved finger is a very safe instrument, and if the cervix is soft, as it most often is in placenta prævia, the fingers may succeed. I prefer Hegar's, the patient being under an anæsthetic. It is an easy and safe matter to carry the dilatation up to two fingers size, when bipolar podalic version can be commenced. Forcible dilators, like that of Bossi, could be used in the same way, but as you all know, this instrument was invented to carry the dilatation up to nearly full in cases of eclampsia. It has also been used in severe cases of ante-partum bleeding, but I think that such a proceeding has already received the condemnation it deserves.

With regard to tents, we have the sponge and sea-tangle varieties. It is rather a matter of surprise to find that Dr. Herman still advises the use of sponge tents as the best means of plugging, and at the same time dilating, the cervix in placenta prævia. It is true that the action of the sponge tent is fairly rapid, but beyond this there is nothing to recommend its use in modern obstetric practice. It may be labelled a nasty, septic thing! Laminaria tents have the merit of cleanliness, for they can be kept in carbolic and alcohol 1–20, or biniodide and glycerine 1–1000. The action of laminaria tents, however, is far too slow for our purpose. For cases in which the bleeding is not too severe, the more passive means may be employed.

Much has been taught and written about the obstetric plug in checking hæmorrhage. This is ancient treatment, but the method of its application has been improved upon. At the Rotunda, vaginal packing seems to be the order of the day in the treatment of all kinds of ante-partum hæmorrhage, and without doubt Professor Tweedy is much impressed with its value. I have used a plug on many occasions, and have come to the conclusion that its use is of value in those cases in which the os is not sufficiently dilated to allow of bipolar-podalic version, but where there is a certain amount of dilatation, and some evidence that the uterus is contracting. I am sure it is quite useless to plug with the uterus in a quiescent condition, for I do not believe that plugging will actually set labour going, but there is no doubt it will stimulate an active uterus to increase action. The reason why a plug so often seems to cause dilatation of the cervix is that the uterus is already in action in most cases of ante-partum hæmorrhage, this being specially true for placenta prævia. In three cases of ante-partum hæmorrhage where there was no evidence that labour had commenced and the cervix was closed, plugging failed to bring about any dilatation of the os after a twenty-four hours' application, and we had in each case to fall back upon one of the more active methods of dilating the cervix in order to get sufficient room to perform version. Dr. Herman is strongly against vaginal packing, but recommends plugging the cervix with a sponge tent, which, he says, is most effective in stopping the bleeding and dilating the os. He complains that the blood will collect above a vaginal plug which will merely result in concealed hæmorrhage. Dr. Galabin makes the same remarks, and even goes so far as to warn students, in a foot-note, *not* to advise plugging at examinations. It is true that the blood will collect above the plug, but if the uterus is in an irritable state, it will not allow itself to be distended, and the intra-uterine pressure must, within a short space of time, rise higher than that of the general blood pressure. The bleeding must therefore soon cease. Everybody is agreed that it is useless to apply a plug after the membranes are ruptured, for it is quite as necessary to have a uniform pressure above the cervix as below. I should never use the obstetric plug inside a hospital, because with the patient under an anæsthetic, and in the lithotomy position on the table, the cervix can be drawn down and gently dilated up to No. 25 Hegar, which is a cleaner, a quicker, and a surer method of preparing the way for a bipolar-podalic version. It must be confessed by even ardent enthusiasts that it is a painful process to plug the vagina properly without an anæsthetic. If the vagina is to be plugged, it must be done well, either with the patient in the left lateral or the lithotomy position. A vaginal speculum is inserted, and the vagina, and as much of the cervix as possible, is filled tightly with gauze, wrung out of some mild antiseptic solution. The plug must project well beyond the vaginal outlet, a tight abdominal binder applies pressure on the uterus above, and a perineal brace presses the plug up from below. The packing can remain in for about twelve hours, but not longer, as it is likely to harbour sepsis, and a hot vaginal douche should be given after its removal. To sum up, I think a plug will be useful if the hæmorrhage is not too severe. If the cervix is dilated, but will not admit a finger, and if there are signs of uterine contraction, it should not be employed for more than eight to twelve hours, and should be followed by bipolar-podalic version as soon as the os will admit two fingers. I think that if its use is limited to this kind of case, the plug will be found to be of great value. I am sure it should not be employed indiscriminately in any case of ante-partum hæmorrhage. For

concealed accidental hæmorrhage it is worse than useless.

Now let us suppose that we have dilated the cervix, or it is already dilated. How are we to go on with the case? About this I have no doubt, for I believe bipolar-podalic version is by far the best method of delivery both in external accidental hæmorrhage and placenta prævia. This form of version, which is known all over the continent as that of Braxton-Hicks, has done more to bring down mortality than anything in midwifery, except antiseptics.

When Champétier de Ribes invented his cone-shaped bag, it was thought that the fœtal as well as the maternal mortality would be reduced. In many of the London hospitals bags are still used for placenta prævia and accidental hæmorrhage. I cannot see any advantage that a bag has over bipolar-podalic version, and there are certainly many disadvantages. For external accidental hæmorrhage a bag may be of more use than for placenta prævia, because there is always some hope of saving the child, and without doubt, if a bag is placed within the cervix after rupture of the membranes, and a vertex presentation is delivered with forceps, there is a much better chance of obtaining a live child than if the leg is brought down first; and further, this method of delivery is fairly safe in external accidental hæmorrhage, because there is less uterine inertia.

In placenta prævia there ought to be no question of the child's life. The infants are most often premature, and if they are not already dead from hæmorrhage, they generally die soon after birth. Apart from this, it is quite obvious that the only way to lessen the fœtal mortality is to deliver more rapidly, before the child has had time to die of bleeding or asphyxia. If this is done, the maternal mortality must go up, for rapid delivery by traction will frequently result in post-partum hæmorrhage and shock. It is quite clear that the life of the fœtus should receive no consideration in dealing with a case of placenta prævia. Further, bags are difficult to sterilize, and they need at least four hours' soaking in hyd. perchlor. Septic organisms are more likely to be swept upwards during the introduction of the bag than by two fingers, and since sepsis is of such frequent occurrence after placenta prævia, this is an important point against the use of bags. Personally, I should never use a bag for any kind of ante-partum bleeding, and I think it could only be of service in a case of external accidental hæmorrhage, in which the cervix will just admit a finger. Even then a bag will not only be difficult to introduce, but it will be liable to cause laceration of the cervix.

Bipolar-podalic version is by far the best method of delivery, especially in placenta prævia. No instruments are required, and the half breech forms an efficient and aseptic plug which presses upon the placental site. In most cases it is a very easy operation to perform, and in doing so, the membranes are ruptured, and labour is induced. An operation which gives an aseptic plug to arrest the hæmorrhage, a dilator to dilate the cervix, and is a means of inducing uterine contraction, is to my mind *ideal*. In performing the version, the operator must be careful not to force more than two fingers through the cervix. I have seen a case in which the whole hand was thrust through the cervix, resulting in a ruptured uterus, which luckily was extra-peritoneal. The hand could pass through the rent into the left broad ligament. The patient was desperately ill, and after many weeks of sepsis, she eventually recovered. When the leg has been brought down, the rest of the delivery should be left to the uterus. On *no* account should traction be made upon the leg, except when there is a severe gush of blood in placenta prævia, and even then the traction should only be just enough to put pressure on the bleeding site. If rapid delivery by leg-traction is effected, post-partum hæmorrhage will be liable to occur. When the version is completed, the patient is in a fairly safe condition, and it is then best to give the uterus time to recover from its inert and atonic condition. Of course post-partum hæmorrhage is of rather frequent occurrence after ante-partum hæmorrhage. I think, of all the methods of arresting severe post-partum hæmorrhage, perhaps the most efficacious is to put the patient in the cross bed lithotomy position and draw the cervix down with tenacula forceps, and then clamp the tissues on each side of the cervix as high as possible with strong forceps. These clamps will reach the uterine arteries, and can be left on for twenty-four hours. This method will be found specially useful in placenta prævia, because the main blood supply is lower in this condition.

One can take much more liberty with the uterus in external accidental hæmorrhage. For instance, there is not so much inertia, and forceps delivery with the os at near full dilatation is always possible. Again, the old and simple method of rupturing the membranes can nearly always be relied upon to arrest the bleeding and induce uterine contraction.

There are some rare cases of ante-partum hæmorrhage, in which the bleeding is very severe and the cervix is rigid. These cases may require more drastic treatment, and it seems to me that a careful delivery with forceps or by version after anterior hysterotomy is good treatment. Vaginal Cæsarian section is not a difficult operation, and it must be a much more surgical proceeding to cut the cervix and sew it up than to tear it to pieces with forcible dilators. This operation is performed by making a transverse incision in front of the cervix and peeling the bladder off, in the same way as in vaginal hysterectomy. When this step is completed, the cervix is slit up in the middle line in front until enough room is obtained to deliver with forceps or by version. The cut surfaces are afterwards united by sutures.

Concealed accidental hæmorrhage. — This form of bleeding, the worst of all, clinically stands apart from the external varieties. The pathology is similar to that of external accidental bleeding, but the condition of the uterine walls is different. What this difference actually is we do not know for certain. Under certain conditions

the uterus allows itself to be passively dilated, and thus a patient may bleed to death into her own womb. I should like to mention that in the greatest number of cases of accidental hæmorrhage arterial degeneration is the cause of the hæmorrhage. The patients are usually multiparous, and have had their children quickly. Either because of this, and probably because of some pre-existing sepsis, the early placenta is developed in a uterus with morbid endometric and myometric changes, as well as local arterial degeneration. The result is that the vascular connections between the maternal and the fœtal parts of the placenta are faulty and hæmorrhage takes place, causing either abortion or later accidental hæmorrhage. It will also be found that chronic renal disease and tertiary syphilis are for the same reason common causes of abortion and accidental hæmorrhage. Certainly, four cases out of five, suffering from concealed accidental hæmorrhage, which I have seen, had albuminuria with epithelial casts. The books on obstetrics state that concealed accidental hæmorrhage is the worst condition which can overtake a puerperal woman, except sepsis. The mortality is put down to about 95 per cent.

This only applies to those terrible cases in which the patient, during the later months of pregnancy, is seized with sudden abdominal pain, quickly followed by blanching and collapse, and on examination the uterus is found to be distended and tender. These cases are very rare, but there are a number in which the bleeding begins beneath the placenta, causing somewhat similar symptoms, but after a short while the uterus begins to resist the influx of blood, and the cervix begins to dilate. The bleeding may eventually become external, and the placenta, when delivered, will show a well-formed subplacental hæmatoma.

There may, therefore, be said to be two types of concealed accidental hæmorrhage. In the one the uterus is in a paralytic and inert state, and will allow itself to be distended with blood to such an extent that it will occupy the whole peritoneal cavity without the cervix dilating, while in the other variety there is some power of resistance in the muscular wall. In this non-paralytic variety the cervix will be found dilating which, of course, means that there is still some contractile power left in the uterine muscle.

For the paralytic cases the only hope of saving the patient is immediate delivery. Accouchement forcé is, to my mind, out of the question. To forcibly dilate the cervix, and drag the child out, will almost certainly cause too great a shock to a patient who is already in a desperate condition. Moreover, such an operation will be followed by post-partum hæmorrhage. Abdominal Cæsarian section will give by far the best chance. The fœtus and placenta can be removed rapidly, and the uterus can be brought forward through the abdominal incision. The operator will thus have complete control over the bleeding site, and if all efforts to obtain uterine contraction fail, hysterectomy can be performed without delay. Vaginal Cæsarian section has been performed for this condition, and perhaps gives rise to less shock, but one has less direct control over the uterus than by the abdominal route.

For the milder forms, where there is evidence of uterine irritability, as shown by some dilatation of the cervix, the old time treatment of rupturing the membranes is best, the delivery being completed either by version or the introduction of bags. It is thought by some that if the membranes are ruptured in concealed accidental hæmorrhage, the uterine muscle will not retract, and the draining away of the liquor will only cause a still further decrease in the intra-uterine pressure and a consequent increase in the bleeding. They say that if a uterus will allow itself to be distended with blood, its muscle must either be diseased or paralytic, and if it is not diseased or paralytic, any blood, poured out beneath the placental site, will at once be forced toward the cervix and become external. But this is not always the case, and the fact that the os is dilating in a case of concealed accidental hæmorrhage shows clearly that the uterus is, to a certain extent, resisting the inflowing blood, and therefore there need be little doubt that the muscle has some power of retraction left. Of course, in the true paralytic form, where the cervix is not dilated, it would be useless to rupture the membranes.

I will not discuss the question of vaginal packing in concealed accidental hæmorrhage, for it is perfectly obvious that a paralytic uterus which will allow itself to fill up with blood, will certainly not take notice of cervical stimulation, nor will a plug help in any way to arrest hæmorrhage. The two following cases are very good examples of the paralyitic and the non-paralytic forms of concealed accidental hæmorrhage.

1. A woman, æt. 25 years, who was six and a half months pregnant with her second child, was suddenly seized, late one night, with acute abdominal pain. Her doctor found her in a collapsed and blanched condition, and a diagnosis of ruptured ectopic gestation was made. The patient was sent to Guy's Hospital in the early hours of the morning. Laparotomy was advised, but while preparing the patient and waiting for the arrival of the husband, vaginal bleeding set in, and on examination the fœtal head was felt presenting. The membranes were ruptured, and the child was born within an hour after version. The patient had unfortunately lost too much blood, and she died a few hours later. The uterus contained a large amount of blood and clots, which filled the upper half completely and pressed the ovum downwards. Of course, this condition is quite exceptional in a young woman of 25 years, but it must be confessed that ruptured ectopic gestation after the fifth month of pregnancy is practically unknown, and had a correct but extremely difficult diagnosis been made some hours earlier, the patient might possibly have been saved by abdominal Cæsarian section.

The other and less severe case occurred here in Derby. The patient, a multiparous woman, æt. about 38, at about the eighth month of pregnancy, complained of sudden abdominal pain. When Dr. Heath saw her she was collapsed and very blanched, with a rapid thready

pulse. Her uterus was tender at the fundus and distended. Dr. Heath diagnosed concealed accidental hæmorrhage, and asked me to help him with the case. When I saw her, the os would admit the tip of a finger, and there was already a little visible hæmorrhage, and we could feel slight uterine contractions. The patient refused to go into any institute, or even have a nurse; and as she had somewhat recovered from the immediate shock of sudden hæmorrhage, and we did not feel disposed under the circumstances to immediately dilate the cervix, a plug was put in, and after waiting about six hours, the cervix was sufficiently dilated to attempt version. The uterus had become so tense that I absolutely failed to even move the presenting vertex out of the brim with the patient deeply under an anæthetic. We dilated the cervix as far as possible with the fingers and delivered the fœtus with the cephalotribe after perforation. The mother was very ill from loss of blood for some time, but there was no septic trouble, and she made a good recovery.

This paper is necessarily incomplete. I have merely touched upon points which have been matters of difficulty to myself, and only hope that my remarks may be of some practical value to others.

Reviews, etc.

The price of books submitted for review should in every case be stated.

Hints to Ships' Surgeons. By J. F. Elliott, L.R.C.S., L.R.C.P. Irel. (John Bale, Sons & Danielsson, Ltd.) Price 2s. net.

Anyone who contemplates taking a Ship's Surgeoncy should make a point of reading a book from which he may gather some idea of the position he will occupy and the work he will be called upon to do. This little book has the unpretentious but descriptive title of "Hints," and is written as the result of some years of practical experience. The advice given is sound and reliable and in compact form. Perhaps it is a little scanty in places; for instance, Chapter II., "Concerning Uniform and Outfit," could be amplified with advantage.

The author, in his introduction, raises the question as to whether Ships' Surgeons are inferior to other classes of medical men, and he answers his question by a decided negative. With this one certainly hesitates to agree when one considers the unsettled character of the work, the impossibility of keeping up any reading at all, the lack of facilities for proper treatment, and the short glimpse to be obtained of any case. Above all, the method of payment does not tend to raise the standard of Ships' Surgeons or the dignity of the profession. We do not merely quarrel with the insufficiency of the salary, but the method whereby the surgeon has to attend all passengers free of charge introduces all the evils of that pernicious thing—a club practice. The worst passengers may try to regard the doctor in the same light as a steward, and may even venture to offer him money in the form of a tip, whilst even the best will not fail to arouse him at 2 a.m. for a pill.

The medical profession should insist on the shipping companies adopting a scheme whereby the doctor receives a fixed salary for attending the officers and crew, but may charge for his services to the passengers on a reasonable scale.

Sport.

Rugby Football.

GUY'S "A" v. ST. MARY'S "A."

JUNIOR RUGBY CUP.—SEMI-FINAL.

This match was played at Chiswick on Wednesday, March 17th, and resulted in a runaway victory for Guy's by 9 goals 7 tries (66 points) to 1 try (3 points).

The score denotes the character of the play, Guy's pressing continuously, with the exception of a few isolated rushes by our opponents. The score at half-time was 34 points to nil.

The second half was practically a repetition of the first, but just before the whistle went Mary's got away and scored an unconverted try.

Tries were scored by Tooth (5), Clarke (3), Covell (2), Sampson (2), Andrew (2), Irvine (1), Monaghan (1). Bullock scored for Mary's. Glendining took all the place kicks but one, and converted nine, many of which were from an awkward angle. Team:—

GUY'S.—P. E. H. Patey (back); B. Sampson, G. C. Covell, W. T. Clarke, F. Tooth (three-quarters); P. J. Monaghan, G. B. Pritchard (halves); E. L. Elliott, D. Stout, F. Lowe, V. Glendining, L. C. D. Irvine, G. W. M. Andrew, T. P. Cole, G. B. Cockrem (forwards).

GUY'S "A" v. ST. THOMAS'S "A."

JUNIOR RUGBY CUP.—FINAL.

This match was played at Chiswick on Friday, March 19th, and resulted in a victory for Guy's by 6 goals 3 tries to nil. The game was not so one-sided as the score would suggest, our opponents playing in a most sporting and determined manner throughout.

St. Thomas's won the toss and had the wind slightly in their favour in the first half. Guy's attacked at once, and our forwards heeling well enabled those behind to keep up the pressure. During this half Duke was unfortunately kicked on the head and had to retire, Glendining coming out of the scrum and filling the vacancy at back. By this time, however, we had established a lead of 16 points, which was increased to 24 before the interval.

In the second half St. Thomas's made several attacks, chiefly forward rushes, our own forwards being very slow

at getting round. Our marked superiority at half and at three-quarters, where Pritchard and Clarke were especially good, enabled us to score three more tries, all of which were converted. Clarke's try in the second half was the result of brilliant combination between him and Pritchard, and was the best thing in the game. Glendining kicked four goals in seven attempts, and Pritchard converted the last two tries, Guy's therefore winning, as stated, by 39 points to nil.

Everyone played well, but in the latter part of the game the forwards, seeing that victory was assured, did not exert themselves as much as they might otherwise have done. However, they shoved well, and even when there were only seven in the scrum generally managed to get the ball. All the behinds were good, especially Clarke, who continually beat his *vis-à-vis*; Sampson showed some hesitation when he should have run. Cole and Stout were conspicuous among the forwards. Tries were obtained by Clarke (4), Sampson, Covell, Stout, and Pritchard. Team:—

Guy's.—H. L. Duke (back); B. Sampson, G. C. Covell, W. T. Clarke, F. Tooth (three-quarters); P. J. Monaghan, G. B. Pritchard (halves); E. L. Elliott, T. D. Stout. F. A. Lowe, V. Glendining, W. J. D. Smythe, L. C. D. Irvine, G. W. M. Andrew, T. P. Cole (forwards).

Association Football.

GUY'S v. LONDON.

Inter-Hospital Cup Tie.—Final.

A fair number of Guy's men, including, we were pleased to see, two members of the staff, turned out to see this match, which was played at Chiswick on Thursday, March 25th.

The climatic conditions were far from favourable for scientific football, still an interesting game, in which there were plenty of exciting incidents, resulted in a decisive victory for Guy's by 5 goals to nil.

The game was not nearly so one-sided as the score might seem to indicate, London having their fair share of the game, but Guy's excelled in the all-important point of shooting, and to this, and to the sturdy defence of their backs, the victory was chiefly due. Guy's won the toss, and elected to play with the wind at their backs. Some midfield play ensued, but at length King got possession, and sprinting down the wing put in a good centre from which Witts scored our first goal. This early reverse seemed to wake the London men up a bit, and their inside forwards made several attacks on our goal, but found Crook, Bastard, and Mills an almost impenetrable barrier, and were rarely able to get within shooting distance. At length Morley managed to get a shot in, but Rook saved in splendid style, getting the ball well away from the danger zone. Birks now put in some clever work, and the ball was taken down to our opponents' goal, pressure being, for the time, relieved by their conceding a corner. From this corner Humm put us further ahead, placing the ball into the corner of the net well out of their custodian's reach. London, who were now thoroughly alive to the fact that they would have to go for all they were worth if they wished to secure the cup, made several desperate attacks on our defence, who were kept hard at work till half-time arrived. Rook, in goal, made many excellent saves, always finding a safe place for the ball after our opponents had got their shot in.

On resuming, frequent showers of rain made the ball difficult to control, and for a time play was confined to midfield. Some passing between Jones and Birks brought us into the neighbourhood of their goal once more, but Luker relieved with a good kick. From a pass by Crook Witts got away, and making no mistake with the shot put us further ahead. Paget-Tomlinson, Heard, and Morley made many valiant attempts to reduce the lead, but were poorly supported by their halves. Soon after this King got away on the extreme right and scored an easy goal, their goalkeeper misjudging the ball, which glanced off one of our men into the corner of the net. Just before time was called Birks ended up a splendid dribble by scoring our fifth and last goal. London, who were somewhat disheartened by these frequent reverses, were unable to effectively respond, and the game ended as above stated. Team:—

Guy's.—H. C. Rook (goal); H. R. Bastard, C. H. Mills (backs); K. H. Hole, A. H. Crook, C. W. Greene (halves); R. M. King, C. J. Witts, T. Lewis-Jones, A. H. Birks, P. S. Humm (forwards).

Remarks.—Hearty congratulations to the Soccer team on winning the Cup for the fourth successive year. A word of special praise must be given to our defence, who, we believe, have not had a goal scored against them in the Cup ties.

Births.

BOX.—On March 20th, at Berwyn, Stratford-on-Avon, the wife of William F. Box, M.B. Lond., of a daughter.

SIMSON.—On March 12th, at Cheyne Court, Chelsea, the wife of Captain H. Simpson, of a daughter.

Deaths.

COLLET.—On March 29th, at Ashurst Lodge, Worthing, from heart failure, following influenza and congestion of the lungs, Augustus Henry Collet, B.A. Cantab., M.R.C.S. Eng., L.S.A., in his 65th year.

EDWARDS.—On March 11th, at Chipperfield, King's Langley, Edward Noble Edwards, M.R.C.S. Eng., L.S.A.

EVANS.—On January 17th, at Sydney, New South Wales, Thomas Evans, M.R.C.S. Eng., L.S.A., aged 58 years.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

DURING His Majesty's stay in Biarritz, four nurses attached to the King Edward's Nursing Home at Villa Francezon, Avenue Victoria, were presented to him, and he expressed his appreciation of their self-sacrificing devotion The nursing home was instituted last year by the King himself to enable doctors and sick persons in or near Biarritz to obtain the services of a trained nurse from a London hospital. To Guy's fell the honour of filling these posts, and the nurses are sent out from our Trained Nurses' Institution to work in the Home, or in the town or district.

OUR readers will be interested to hear that Sir Shirley Forster Murphy, Medical Officer of Health for the County of London and an old Guy's man, has been accorded the rare distinction, together with Professor George Dancer Thane, of University College, of election to the honorary Fellowship of the Royal College of Surgeons as a member of twenty years' standing.

MR. JAMES A. FRASER, of Western Lodge, Romford, the Honorary Secretary of the Junior Guyite Club, has forwarded us a list of members of the club, and a notice of its forthcoming dinner, which is to be held on May 13th, at Frascati's (Masonic Room). Mr. E. W. Lockhart Stephens will occupy the chair on this occasion, and Mr. Chas. Sangster the vice-chair. Members are requested to write to the Secretary with reference to tickets not later than May 7th. Attention is called to a rule which was made at the last dinner to the effect "that any member be entitled to bring any Guy's man (not being a member) as a guest to the Dinner."

WE are indebted to Mr. Edmund Aikin for a photographic copy of a sketch which appeared in the *Police News*, *Hue and Cry*, or some such paper, of date somewhere in the "fifties." The sketch represents Drs. Rees and Alfred Swayne Taylor, the chemical experts, employing Marsh's test for arsenic. The occasion was a trial for murder by poison, during the course of which the analysts discovered that their reagents were contaminated by the very poison which was under suspicion. The prosecution, not unnaturally, collapsed in consequence.

IT has been brought to our notice that the bound volumes of old medical reports, which

are housed in a room on the ground floor of Hunt's House and are frequently consulted for purposes of research, are very often taken down from the upper shelves and, after use, are left lying about instead of being returned to their places. This causes much inconvenience to other investigators, and to the medical registrars, who are always kind enough to make the volumes in their charge accessible for genuine study. Moreover, medical registrars are not as a class tall men, and it is obviously unfair to expect them to return the bulky tomes to the top shelves. We hope that this grievance, having once been pointed out, will cease to exist. We hear that many of the old volumes are being re-bound at considerable trouble and expense, and we hope also that they may be more conveniently arranged in the near future. The mass of clinical *data* represented by these volumes must be one of the most valuable possessions of the hospital, and it is only fitting that they should be kept in the best possible preservation.

We have received an official notice from the University of London to the effect that "The Senate have resolved that candidates for examinations shall no longer be supplied with refreshments in the University Building. Candidates are accordingly recommended to make their own arrangements for the forthcoming examinations." The latter part of the notice has a piquancy which was quite absent from those ghastly meals, procured by means of tickets, eaten in a dark cellar under the eyes of "invigilators," and swallowed by a crowd of talkers of "shop" and quick luncheon and knowledge crammers, which used to be a feature of examinations at the Imperial Institute. Those refreshments supplied in the University Building must have been responsible for more fuddling of heads and subsequent ploughing of candidates in the afternoon papers than any other factor. The Senate's resolve should breathe a message of hope to many, and candidates will find that "their own arrangements," even though they consist but of an apple munched in the open air, will leave them happier and wiser men to grapple with the afternoon papers than if they had been at the mercy of the University catering.

In a recent article in the *Daily Telegraph*, Sir Francis Burnand has given some entertaining reminiscences of the owners of the initials carved on the famous *Punch* table, at which the weekly dinners of the paper are held, and the cartoon for the week is evolved. Coming to the initials "P. L.," the late editor has something to tell us of Percival Leigh, who was the oldest member at the table, with the exception of Mark Lemon, when Burnand took his seat in 1863. The interest in Percival Leigh for us is, that he had been a medical student at Guy's, but he never qualified, and was therefore nicknamed "The Professor" by his comrades, because he had never practised what he professed. Probably Leigh's greatest service to *Punch* was his introduction of John Leech to the editor, but he himself served as sub-editor to four successive editors, and his comic Latin and English Grammars, illustrated by Leech, had a great vogue. The "Professor" "was a student of the works of Emanuel Swedenborg, that is, up to certain points, where, as appeared from somewhat frequent post-prandially meandering discussions on theology, the worthy 'Professor' was not, as he expressed it, 'on all fours' with the somewhat erratic and over-wrought Swedish philosopher."

"Having expressed his dissent from some profound dictum that Swedenborg had laid down, and which the 'Professor' could not, at that late hour of the evening, stoop to pick up, he would nod smilingly to those about him, rise cautiously from his chair, evidently calculating to a nicety the exact number of steps that it would take him to arrive safely at the door, and then, keeping his object, the door, in view, and looking neither to the right nor the left, he would make his mentally-rehearsed exit, and disappear. Occasionally the 'Professor' would be, as stage directions have it, 'heard outside' on the landing, or having some argumentative difficulty with the bannisters as to the 'Descent of Man'; but this meant nothing, practically his evening's performance was finished."

The lives of such men, who begin a career in medicine, or another profession, and then drift away to something else, are nearly always interesting and not infrequently successful, even though it may be a tendency to "chronicity" which leads them to give up their original vocation (as it is called by unconscious cynics). Probably in medicine there is always a larger proportion of these seceders than in other professions, for medicine has no place for drifters or derelicts, and moreover must be unendurable for those who have a positive dislike for it, and many such, impelled by the quaint father-and-son tradition, must be every year enlisted in its ranks. The researches of Sir James Paget into the subsequent careers of a thousand students at St. Bartholomew's are nearly always quoted in this connection. Of these, it will be remembered, ninety-six left the profession, of whom thirteen left or were expelled as pupils, three were "removed by friends," two retired on private means, four left in disgrace, three became actors, three enlisted, four entered the Army as officers, twenty left for mercantile life, one only left for the Bar, seven for the Church, nine took to farming, three became homœopaths (Sir James Paget is responsible for the insinuation that these three left the profession), and the remaining twenty-four left for various other reasons.

The following letter, which we reprint in all its pristine prolixity, contains another case for diagnosis:—"Sir, my child was all right for some time, 3 years and half, and been in the fever Hospital for nine weeks and when he came home he was complaining about his nose, which he knocks him self about, and he seems to waist and to deducked in his flesh, also about 3 weeks ago he got a fright from a Motor bus and he did not speak to me about it, and when he goes to bed, he knocks him self about so much that I am obliged to bring him here hoping you will do your best with my boy, also he seems to get worse each week and now he get it day and night he cannot speak plain and cannot hold any think in is hand, and he seems to get chocked in the throt which he gets to feal bad his dry and chest and back hurts him very much and also at his side hoping that you will do your best with my boy."

A brief notice of the death of Mr. Augustus Collet, of Worthing, which occurred on the 29th of last month, has already appeared in these columns, but it is only fitting that some fuller account of his career of public and private activity should be given in the journal of his old hospital. Augustus Collet was born at Worthing sixty-five years ago, the son of a doctor who practised in the town for forty years, so that the professional life of father and son amounted to seventy-six years, passed in the same place. The son was educated at Epsom and Pembroke College, Cambridge, and his medical studies were pursued at Guy's Hospital. Except for a three months' appointment at a hospital in Nottingham, the whole of his professional life was spent at Worthing, where he conducted an extensive private practice combined with numerous public appointments. With the hospital there he had the distinction of being associated for a longer time than any other of its staff; he became one of its medical officers in 1871, and continued until his death, latterly also filling the post of chairman of the Committee of Management. Apart from his professional life, Mr. Collet took an active part in the public life of his town, in athletics, in volunteering, and especially in music. Music was his hobby, and he remarked on one occasion in public that he had been accused of being "music mad," but did not mind so long as there was method in his madness. And one result of the method was that he could never be prevailed upon to accept a fee for professional attendance on any musician.

Papers by Guy's Men.

Rowlands, R. P., M.S. Lond., F.R.C.S. Eng.: A Clinical Lecture on the Treatment of a case of Extensive Infantile Paralysis by Operation and Apparatus. Illustrated.—*British Medical Journal*, 10th April, 1909.

Shaw, Lauriston E., M.D. Lond., F.R.C.P. Lond.: A Clinical Lecture on Traumatic Heart Disease and Compensation for "Accidents."—*British Medical Journal*, 10th April, 1909.

Spriggs, Edmund I., M.D. Lond., F.R.C.P. Lond.: Remarks on the Treatment of Gastric Ulcer by Immediate Feeding.—*British Medical Journal*, 3rd April, 1909.

Webber, H. W., M.S. Lond.: A Note on the Operation for Hernia at the Extremes of Life.—*Lancet*, 10th April, 1909.

Plague in a Punjab District.

"Now it is not good for the Christian's health
To hustle the Aryan brown,
For the Christian riles and the Aryan smiles,
And he weareth the Christian down;
At the end of the fight is a tombstone white,
With the name of the late deceased,
And the epitaph drear, 'a fool lies here
Who tried to hustle the East.'"

—Kipling.

A few notes about plague, and the means recommended to pre ent it or hinder its spread, may interest your readers and enable them to realise the important fact that, even if an absolute preventive for this deadly disease were to be discovered to-morrow, it does not by any means follow that the masses in India would permit its use amongst them for many years to come.

My limited experience of plague has been by no means sufficient for me to pose as an "expert" on the subject, even if I wished to; so I am merely stating the means adopted and the conclusions arrived at during the past eighteen months in my own district of Ambala.

It is generally accepted nowadays that the chief agent in conveying infection from plague-infected rats to man is the rat flea, and that the latter's prevalence or scarcity may have a close bearing on the rapid spread or otherwise of the disease.

A most interesting question, and one of great importance, is how is plague maintained during the hot weather months, when human plague has in large tracts of country apparently quite died out? Does the plague bacillus perpetuate itself by a chronic form of the disease amongst rats by unrecognized, and therefore unnotified, cases of the disease in humans, or does it lie perdu in the soil or elsewhere, only awaiting the return of favouring conditions to resume its former activity?

Plague deaths in the Punjab alone for five months, January to May, for the past three years:—

1906	1907	1908
71,463	535,919	25,852

The population of this district was in 1901 about 819,000, and of these some 114,000 live in six cities, the rest either in towns where the inhabitants number from three to four thousand, or villages containing on an average perhaps one to three hundred people.

The primitive sanitary, or, rather, insanitary conditions under which the villager lives become much worse in the towns, whilst in the cities some sort of an attempt is made at more definite sanitary measures. Plague seems to seize with a firm grip those towns which are most insanitary and congested.

An interesting fact is, that not only villages in the low hills have escaped, to a large extent, but villages also in the plains near the foot of the hills. This must be ascribed, I think, not to any question of difference in elevation, but to some difference in the villages themselves, the chief reason being, in my opinion, the scattered formation of the villages, which does not favour rat infestation. Others have ascribed it to the fact that the inhabitants, who are mostly Gujars, possess large numbers of cattle, and that cats, which keep the rats down, are attracted by the abundance of milk. As a general rule, also, these villages are more inaccessible than villages well out in the plain.

The chief measures at present advised are evacuation of infected villages, rat destruction, and inoculation.

Disinfection of houses either by chemicals or heat has been practically abandoned, though Liston has lately shown that an emulsion of kerosine oil with soap can be used with success as a flea-killer, but this measure would seem at best to be of only very limited service.

In view of present-day ideas as to the manner in which plague is spread, rat destruction seems theoretically to be the most promising line on which to work, but, practically, I believe rat extermination is hopeless.

In the first place, all the conditions of village life are in his favour. The intricate network of lanes, courts, and alleys, with walls, floor, and roof all of mud, form an excellent medium in which to excavate his holes and burrows, so that they ramify in all directions, and one run may have openings into several houses.

Again, food supplies are always to hand, for the grain store in a native house is kept in vessels made of wicker and covered with mud, into which it is easy for a rat to penetrate, whilst the dark recesses of a Bunia's shop, amongst the earthen jars in which he stores all his edible wares, form a happy hunting ground, not to mention the fact that odds and ends of garbage are always to be found in close proximity to the houses.

Again, the native of India, though annoyed and worried by the rat, like a bald-headed man by a fly, does not seem to cherish the fierce and bitter hatred the latter does, which leads him to considerable exertions in his efforts to slay the offending insect. On the contrary, the most that can be expected, as a rule, in rat-destroying operations is passive tolerance, whilst in some places active objections are raised. The Jat Sikh, as a rule, is only lazy, yet this trait can give rise to unnecessary delays and difficulties, but the Bunia class, in whose hands the grocery and grain business of the village lies, may, if in sufficient strength, refuse to have their shops baited, as they consider it a sin to destroy animal life; when, however, alone or in small numbers they bow to the general opinion of the village.

The Jains, a caste who wear muslin veils in front of their mouths and sweep the ground before they sit down, lest they inadvertently injure the smallest living thing, are uncompromising opponents of rat destruction.

Mahomedan Rajputs are somewhat difficult to deal with, as they object to their houses being entered on account of their women being "purdahnashin," though this difficulty can usually be got round, when they are sufficiently intelligent to listen to reason.

The two chief methods employed in rat destruction are poison and traps. Cats are only to be seen occasionally, and then, like the village dogs, they are usually Ishmaelites—every man's hand is against them—so that they find it easier, I think, to pilfer than to catch rats, especially as the reward in either case may be a clod of earth flung at their heads. Under the head of poisoning may briefly be mentioned the Danyz virus, which has, out here perhaps, owing to climatic conditions, so far proved a failure.

Various poisons have been used, but a substance containing phosphorus is recognised to be the most satisfactory, both for its effects on rats and its comparative harmlessness to other animals. It was first used spread on small squares of "chupatty" (thin cakes made from unleavened flour), but is now usually mixed with flour and sugar and manipulated into long rolls, which are then cut into sections so as to form a rough kind of pill. Some ten to twenty of these pills are placed in each room, being thrown under cupboards, amongst pots, behind boxes and lumber, or down rat holes—in fact, every place where humans cannot reach them and rats can.

Sometimes a careful "householder" will come forward with a little dish to receive the "pills" in, but it is not advisable to hand them over to him, as quite possibly, directly your back is turned, he will either throw them outside in the street or bury them, and, indeed, if the pills are not well hidden away, they will probably be swept up by the careful housewife and thrown outside.

The chief opposition, apart from religious scruples, is due to fear that children or domestic animals may find and eat them, or that they may fall into food stuffs and thus be inadvertently consumed.

Pigs, dogs, cats, fowls and crows not infrequently do perish, but I have never come across a case of harm occurring to cattle or humans. The birds are no doubt killed by eating the pills, but the others die, not so much from eating the pills directly, as the dead rats poisoned by them. These regrettable occurrences, however, are due to laziness or disobedience on the part of the villagers, as they are always warned not to throw pills or dead rats into the street, but to have them collected by the sweepers, and buried out of harm's way.

Most of the consequent rat mortality occurs during the following three or four days, though deaths may go on occurring for a week or more. I fancy a large proportion of the rats die outside their holes, but in some cases they do not, and then people complain of the bad smells caused, though I should not have thought that a villager living amongst as many smells as he does would have minded one more.

We usually try to get an approximate idea of the number of rats killed in each village.

It is considered that thoroughly carried out poisoning operations should markedly reduce the rat population for some two to three months, when it should be again repeated.

Poisoning should not be carried out in places already plague infected, as not only do the people then associate the two processes as cause and effect, but there is also the strong probability that killing plague-infected rats, and so setting free plague-infected fleas, may aggravate the epidemic; besides, plague kills off rats more thoroughly than our poisoning does.

Trapping appears to have many advantages, but there are several counter-balancing disadvantages. The ordinary steel wire trap, in which as many as twenty or even thirty rats can be caught in one night without rebaiting, costs from two shillings upwards, and though durable, will not, of course, last for ever, especially when not properly looked after.

The initial expense, therefore, is considerable, as it is considered that in villages and small towns one trap for every fifty of population is required, whilst for large towns double this proportion or even more.

Again, to deal with these traps in large numbers, a special staff is required to bait, collect and clean them, whilst after a time the rats seem to become more cunning, and only a smaller proportion are caught.

Of course where the people themselves are willing and anxious to trap rats, the task is greatly simplified; but unfortunately they have not proved to be so here, in my experience. I have found that though people will use traps readily at first, as soon as the more turbulent and troublesome rats have been removed, they get slack, and will not persist with the scheme for any length of time. Several times I have had applications from villages for traps, only to receive a petition a few weeks later that all the rats have been caught, and that they are tired of the trouble of traps.

Total number of rats killed in Ambala district for 12 months of 1908—

Poisoning.	Trapping.
100,000.	117,000.

Evacuation.—This is a measure whose chief recommendations are that, if carried out early and thoroughly, it checks plague very markedly, and that it is the only measure resorted to by the people spontaneously; the latter recognise the fact that plague in rats is likely to be followed by cases amongst humans, unless they abandon their village. It can, however, only be thoroughly carried out in small villages. In towns an outbreak of plague is often the signal for the Mahazin population (*i.e.*, shopkeeping class) to shut up their stores and make a bolt for some friend's or relation's house in another town, thus carrying the infection far and wide.

The chief objections raised to evacuation are two. First, and I think most important, the difficulty they often have in providing shelter for themselves and their cattle, for in the severe cold weather of the Punjab, shelter of some kind is essential, as otherwise the death rate from pneumonia and kindred diseases would rise by leaps and bounds, more especially as their garments are scanty and only of cotton. I daresay cattle, too, would

suffer from the exposure, as in the village they share the house like the Irish pig.

This difficulty is not so serious where "phus" (a coarse grass growing over six feet high) and bamboos or wood can easily be obtained, for from them chuppars (grass huts) can be constructed at a reasonable cost (say ten shillings).

It has been suggested that tents or shelters of some kind should be provided, and stored in some central place; but the large initial cost of the numbers required to be effectual seems to negative this proposal, more especially as they would undergo rapid deterioration.

Another difficulty that has been experienced is, that when a village is evacuated, a large amount of property has to be left behind, and robberies become frequent.

It is on account of this fear of theft that they will not leave their cattle behind in the village, where they are always shut up at night, but insist on taking them out with them.

I have sympathised in the past with the villagers who say, "We have not evacuated because, so far, rats only have died, and perhaps there will be merely a slight epidemic, whereas, if we go out now, some of us are sure to die of cold, and we all stand a chance of having our belongings looted." As, however, many villages do evacuate every year under similar conditions, and several villages refused last year to evacuate, when the weather was quite mild, though promised sums in assistance that would, at any rate, have covered part of their expenses, I am now rather more sceptical as regards the truth of the arguments they put forward, and am more inclined to attribute their attitude to inertia.

I do not think anyone will dispute the fact that early evacuation has a markedly favourable effect on an outbreak of plague in a village, though, of course, it is not of much value as a preventive measure.

The Punjab Government has sanctioned aid being given to villages to evacuate, either as a lump sum, a reduction of revenue, or as aid in engaging extra "chowkdiars" (village watchmen). The native of India does not yet regard his "Bobby" in the same friendly light we do.

Inoculation:—The "Milkhowal disaster" in 1902, when nineteen people lost their lives from tetanus after being inoculated, was a serious set back to the popularization of inoculation, for news of this mishap spread far and wide, facts being greatly exaggerated in transmission; still, apart from this, other objections are raised.

Ignorant villagers ascribe to it any disease they may be unfortunate enough to contract subsequently, from cataract to piles, syphilis or gonorrhea!

Another complaint, if the reaction happens to be severe (as I experienced personally), is that the fever and local symptoms may persist for several days—not pleasant for a man who has to do his daily work just the same.

But to my mind the greatest drawback of all is that re-inoculation in successive years is necessary, owing to weakening of the protection afforded, but this re-protection is often not carried out, so that a thick-headed Punjabi tells you that inoculation is no good, for his brother, Ram Singh, was inoculated, but died from plague, and only close cross-examination elicits the fact that several years had elapsed between his inoculation and death from plague.

Last year, even in many villages badly infected, I was unable to do a single inoculation, though people were dying daily, whereas in a few exceptional villages where there was no plague at the time, I was able to inoculate a large proportion of the population owing to the efforts, not altogether unselfish, of some influential inhabitant, usually a local official.

In the last small batch of people I inoculated, one man only seemed pleased and enthusiastic; on inquiry, he turned out to be the village idiot!

The idea is now to utilize, as far as possible, local people of influence in dealing with plague, and to constitute them "local plague officials" to look after a small defined area.

As these individuals are not unselfish philanthropists, but actuated by motives of self-interest, they are encouraged to persevere by rewards, sanads (official letters of thanks) and advancement, so as to make people realise that the man who helps Government measures is the man who will get on. Needless to say, they require close supervision to ensure what they do is thoroughly done.

One fact about plague strikes one at first as very curious, and that is, what a little difference it makes in the ordinary routine of village life—the people seem to have hardened their hearts and are tired of plague and plague measures.

HUGH WATTS,
Capt. I.M.S.

Ambula,
January, 1909.

Chapel Notes.

SHORT services were held at 8.15 p.m. on the first four days of Holy Week, and addresses were delivered on Monday by the Rev. W. J. Jillings (the College of St. Saviour); on Tuesday and Wednesday by the Rev. E. A. Edgehill (Sub-Warden of the College of St. Saviour); and on Thursday by the Right Rev. the Lord Bishop of Woolwich. The Three-hours' Service on Good Friday was conducted by the Rev. F. H. Rice, Vicar of St. Swithin's, Hither Green. At the evening service on Easter Sunday several of the solos and choruses from Handel's "Messiah" (including, of course, the Hallelujah Chorus) were rendered by the choir.

Reviews, etc.

The price of books submitted for review should in every case be stated.

Proceedings of the Royal Society of Medicine, March, 1909. (Longmans). Price 7s. 6d. net.

This issue of the *Proceedings* contains several articles of prime importance besides the usual papers and cases. Thus a continuation of the discussion on the proposed General Anæsthetics Bill, 1908, occupies the Section on Anæsthetics. Dr. George Carpenter's paper on the medical inspection of elementary school children gave rise to a discussion which shows how widely the officers engaged in this work may differ in their aims and ideals.

The Medical Section contains the continuation of an important discussion on Ulcerative Colitis, followed by statistics of the disease from the various London hospitals, those for Guy's being compiled by Drs. Cameron and Rippmann.

Another paper of interest to Guy's men is "The Treatment of Gastric Ulcer: A comparison of cases treated on the Lenhartz dietary and cases treated by saline or nutrient enemas and a graduated milk diet," by Dr. E. I. Spriggs.

Dr. A. Howard Pirie contributes some striking results of the "Treatment of Tuberculous Glands by X-rays," to the Electro-therapeutical Section. The Epidemiological Section consists of an exhaustive account of the "Bacteriology of Summer Diarrhœa," so far as it is at present known, by H. de R. Morgan and J. C. G. Ledingham. Mr. M. Greenwood's paper, in the Pathological Section, on "A Statistical View of the Opsonic Index," is well worth attention. "It is, I think, clear enough," he says, "that the value of opsonic determinations has been disputed by experimental workers whose records appear—at least, to a statistical onlooker—to entitle them to some more conclusive answer than the facile charge of imperfect technique. Be this as it may, . . . it does seem to me that a good deal of evidence ostensibly advanced to prove the trustworthiness of the opsonic index does, in fact, assume the truth of what is to be demonstrated, and that it is necessary to go behind the index, the ratio of two quantities, to the elements from which it is fashioned." Mr. Greenwood then goes on to say that the two factors which affect the accuracy of the opsonic indices are (1) errors of technique, including the personal equation, (2) the assumption that a given sample is representative of the whole. From a study of the latter, Mr. Greenwood concludes that phagocytic distributions are markedly asymmetrical, and that this asymmetry, although reduced, is not removed by emulsions of (from the experimental standpoint) maximal thickness, and that it is probable that "samples of twenty-five are unreliable, at least within the limits of 0·8 and 1·3." Mr. Greenwood concludes his paper by a hopeful anticipation of the future collaboration of the pathologist and the statistician.

Golden Rules of Anæsthesia. By R. J. Probyn-Williams, M.D. (John Wright & Sons, Ltd.) Price 1s.

This is the third edition of this member of the "Golden Rules" series. Most of the alterations, so the author states, are attempts to make his meaning more obvious. In this he has fully succeeded, and though we are inclined to agree with the sage who said that the only golden rule is that there are no golden rules, we think the little book before us probably fulfils a definitely useful purpose. As a minor improvement we should like to suggest that the pages be headed by the name of the anæsthetic under discussion, which would render reference much easier; the present plan of heading each page by the title of the book is more than useless: it is tiresome.

Dental Surgery Notes. By E. B. Dowsett, M.R.C.P., M.R.C S., L.D.S., Demonstrator of Dentistry and Tutor of Dental Revision Classes, Guy's Hospital. (The Dental Manufacturing Company, Limited.) Price 3s. 6d. net.

All dental students, we are sure, will welcome the appearance of these "Notes." The great objection to all text-books on dental surgery is that there is such a large amount of matter which the student must wade through before he finds anything useful to him, from an examination point of view. We have here, however, an epitome of dental surgery which, though it may be read through in an hour, can by no means be looked upon as a cram book. The contents are arranged very simply, consisting more of a series of headings than a full account of any particular disease. To those just commencing reading, the book will be of untold value, for it may be used as a guide to larger text-books, indicating what to read and what is unnecessary, while more advanced students will be able to revise the whole subject in a short time.

The chapters on Drugs and the writing of Prescriptions will be most useful, for the average dental student does no Pharmacy and therefore has no means of finding out anything about the drugs which he is in the habit of using.

Chapters have also been introduced on the use of the X-rays in Dentistry and the Treatment of Hypersensitive Dentine, both of which will be useful from a practical point of view.

To the qualified man, these notes will be of use, for they may be used as a ready reference to which he may turn when in any difficulty, such as the cause of a swelling about the jaws.

Oliver Goldsmith. By E. S. Lang Buckland. (Bell's Miniature Series of Great Writers.) Price, 1s. net.

Having failed (in the worldly sense) in several other walks of life, Oliver Goldsmith, after a medical education of some sort in Edinburgh and Leyden, obtained a diploma somewhere on the Continent, and, returning to London, was set up "in a mean and meagre manner as a physician, in a very poor and dingy neighbourhood—Bankside, Southwark." After a time in this medical Grub Street, he tried the other, and out of it all the "Vicar of Wakefield," and the "Deserted Village," were created, together with a mass of hackwork and potboilers. Goldsmith, as everyone knows, maintained the same careless gaiety, reckless extravagance and harmless vanity through all his troubles—a figure typical of his race and of literature in the old days, but as unlike the typical doctor as can be imagined.

Mr. Buckland, in the little volume before us, has re-told the story of Goldsmith's life, and in every page shows that he is in complete sympathy with his author. This, no doubt, is a desirable feature in all biography, but in Goldsmith's case it is an essential; Goldsmith has no meaning for the pedant or the cynic, for he has no associations with anything which is petty or ungenerous.

PAPERS RECEIVED.

"Some Atavistic Mental States." A lecture delivered before the Hongkong branch of the British Medical Association, by Fleet-Surgeon C. Marsh Beadnell.

"The Dermatological Inspection of School Children." By G. Norman Meachen, M.D., B.S. Lond. Reprinted from the *Medical Officer*.

"Notes on Soured Milk, and other methods of administering selected Lactic Germs in Intestinal Bacteriotherapy." By Elie Metchnikoff, of the Pasteur Institute, Paris. (John Bale, Sons, & Danielsson). Price 1s. net. This paper gives a concise account of Metchnikoff's views on a subject which has been especially associated with his name, and has given rise to such a large amount of discussion. It should be read by everyone interested in the subject.

"Some Reflections regarding the Free Use of Bacteriological Cultures for the Destruction of Rats and Mice." By Dr. J. Danysz (reprinted from the *British Medical Journal*). Also "Note on the use of Rat Virus in India," by Dr. Danysz, and "Experiments with Danysz Virus," by R. O. Saigol, I.M.S. (reprinted from the *Indian Medical Gazette*). These are reprinted, on account of the epidemic of illness which was traced to the use of a rat virus in a London business firm, to support the claim of the proprietors that the Danysz virus is perfectly harmless to human beings and to animals other than rats or mice. Dr. Danysz writes:—"My virus for rats and mice has, up to the present date, caused no accident nor injury to the health of any human being. It cannot, therefore, from the point of view of its pathogenic power, be considered as identical with any bacillus with regard to which that power has been established." In spite of this contention, which seems plausible enough, we are still prejudiced in favour of the more old-fashioned methods for the destruction of rats and mice.

From the Gazette's Special Pathologist.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the Manager, Gazette Office, Guy's Hospital.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

A Case of Urethral Stricture.

CLINICAL LECTURE BY Mr. SYMONDS.

The account of the case I take from the reports of Messrs. J. C. Lowe and Bodkin.

Henry S., aged 45, a chimney sweeper, came into hospital on August 22nd, 1908, for difficulty in passing urine. He had also a perineal fistula, through which much of the urine escaped.

The history of obstruction extended over fourteen years; *i.e.*, it began when he was thirty. Some six years before that he had gonorrhœa, the usual precursor and determining cause of urethral stricture.

Up to 1905 the history is not clear, but he no doubt had increasing difficulty, and, as many of these men do, neglected to look after himself. He came into hospital under Mr. Lucas three years ago with a perineal fistula complicating the stricture, and had as well retention of urine. For the relief of his condition, Mr. Lucas performed what we call at Guy's Cock's operation. This consists in opening the membranous urethra behind the stricture through the perineum, the only guide being the finger in the rectum. Rapidly and neatly performed, it is perhaps the only remaining vesical operation that may be called "brilliant." Lateral lithotomy has been replaced by the more prosaic and safer suprapubic method, and the various operations upon the urethra are conducted on guides.

It was a lesson in dexterity to see Mr. Bryant and Mr. Durham, but especially the latter, perform the operation. With an unerring touch the knife was buried in the perineum. Brodie's probe followed, and along its groove flowed the urine, the whole proceeding, when well done, occupying less than sixty seconds. In the hands of most surgeons at the present day retention is relieved by the equally successful supra-pubic puncture, so that I fear we shall not often again witness the performance of Cock's operation.

As a result of the perineal drainage and consequent rest to the stricture, absorption took place, the constricting material softened, a catheter was passed, and dilatation gradually effected, the man leaving the hospital passing a No. 10. He appeared to have got along fairly well till three months ago, occasionally passing a catheter for himself, when the perineal sinus reopened and he noticed pus in the urine. His catheterism had not been very successful, for it caused him pain, was attended with hæmorrhage, and he probably did more harm than good.

The difficulty of micturition increasing, he was admitted into Job ward on August 22nd in the following condition. He was able to pass his water in a fine stream. The fistula was situated just behind the scrotum, and through it a good proportion of the urine escaped. An examination of the urethra showed the obstruction to exist six inches from the meatus. The urine was somewhat ammoniacal, contained pus and mucus, and was passed frequently. There was, as in all strictures, some pus escaping from the urethra. A No. 3 catheter was passed after some difficulty and tied in.

On taking charge of this patient on September 1st, and discussing the treatment, we had, I pointed out, to deal with an old stricture complicated with a perineal fistula and septic urine, and the question arose as to the best course to pursue. The stricture was permeable to urine, and to a catheter, and therefore was amenable to the method of gradual dilatation, and this method was first to be tried. The No. 3 was replaced by a No. 5 gum elastic catheter, and was changed next day for one two sizes larger. This gave him so much pain that it had to be removed the following day, September 3rd. After a day's rest, the No. 5 was replaced, without causing him pain, but there occurred profuse escape of pus from the urethra. This suppuration had been noticed to follow the insertion of the catheter from the first, but had only become marked and profuse about September 6th. Though not associated with pain, it became necessary to withdraw the instrument, and for the time at least to abandon the attempt at gradual dilatation. On September 8th we considered what treatment was advisable in view of the failure of catheterism, for this plan had to be discontinued on account of the pain caused by the larger size and the profuse urethritis that followed its employment. Some other method of dilating the stricture had to be resorted to—some operative method.

We had, in considering operation, to take into account the perineal fistula and the unhealthy urine. Two principles were applicable:—

To divide the stricture either from the inside or from without.

To open the urethra behind the stricture, insert a perineal drain, and so give rest to the urethra, and subsequently to dilate and divide the stricture; in fact, to repeat in principle the operation of three years ago, the proceeding, however, made easy by the use of a guide.

For the moment we may consider rapid dilatation by means of graduated steel sounds as a method of division in that the mucous membrane must be torn, and the indurated tissue ruptured.

Looking to the septic condition of the urine and the danger of infection to which an intra-urethral incision must be exposed, I decided to operate from outside, divide the stricture, and drain the bladder for the relief of the cystitis. You will recall that in his present condition a catheter in the urethra produced profuse urethritis.

On September 8th a median grooved staff was passed along the urethra and cut down upon from the perineum, the incision passing through the indurated tissue around the fistula. The stricture was freely divided till a full-sized sound passed along the canal. A No. 12 catheter was then tied into the bladder through the perineal wound, and the patient sent back to bed.

Perineal drainage was maintained for three weeks on account of the unhealthy condition of the bladder, and, moreover, a daily irrigation with chinosol was added. Though the urine improved, pus was still present when the catheter was removed.

On removal of the perineal drainage a No. 7 gum elastic was now passed through the meatus into the bladder and retained. Unfortunately this again gave rise to profuse suppuration, and had to be removed at the end of three days, viz., on October 1st. Four days later, October 5th, a No. 8-11 steel sound was passed, and on this day it was observed that very little urine escaped by the perineum. On the 9th, eleven days after the discontinuance of perineal drainage, he was discharged from hospital, both the operation wound and the sinus being closed and a No. 8–11 steel sound passing easily. The directions given were that he was to attend twice a week for three weeks, and then once a week for four weeks, to have the sound passed. And then, recognising that such a stricture will always give trouble, and must be kept dilated, he was advised to pass a steel sound himself from time to time if unable to attend the hospital.

This case illustrates many of the points in the history of urethral stricture. Note first the interval between the operation of the cause and the onset of obstruction, viz., six years. Probably there were minor symptoms which he ignored; still the length of the interval is often much longer. It is not uncommon to get an interval of fifteen or twenty years between a gonorrhœa of early life and urethral obstruction. Probably as age advances there is a tendency to fibroid deposit about such old inflammatory sites as may occur in the gouty, for in taking the history of such cases one cannot elicit any new factor. In a man of the class under consideration, irregularity of living and dissipation, there can be little doubt, more often determine the onset.

Observe next that the perineal fistula, which must have been preceded by an abscess, gave rise to little pain or inconvenience. This is no uncommon history; there has been dilatation of the canal behind the stricture, a granular ulceration, and then septic invasion of the periurethral tissues, by direct extension or by lymphatic absorption. Pus forms in the exudation in this looser tissue, and being of a low infectivity slowly makes its way to the surface. The final perforation of the urethra takes place later and then urine escapes.

In the next place notice that with the presence of mucus and pus in the bladder the pain of cystitis was absent. Though not uncommon in these chronic cases, this feature cannot but raise the suspicion of renal suppuration.

The relapse of this case, after the successful treatment of three years ago, illustrates again the truth of an aphorism of Sir H. Thompson's—"Once a stricture always a stricture"—and unless this man will mend his ways and attend to the dilatation he will again get into difficulties. With each recurring attack of obstruction fresh extension to the kidneys takes place, and indeed, in a case of this kind, infection is always going on, and life is rendered miserable from anæmia, and in a few years is ended.

The treatment of dilatation failed because of the urethritis and pain. The catheter set up irritation and gave rise to periurethritis.

The operation performed upon this man served three purposes:—

1. It divided the indurated urethra and led to the absorption of the new deposit and to its disappearance also by suppuration.
2. It gave rest to the bladder by drainage and prevented the accumulation and decomposition of pus and urine.
3. It also removed the septic urine for a time from the urethra, and so a better healing was promoted.

Note further that the perineal sinus was not specially dealt with. Urinary fistulæ close if the urine be prevented entering the track. Full dilatation of the stricture, whether simply by catheter or by division, will be followed by closure of the fistula and disappearance of all

induration. It is never necessary to open up a simple fistula or to apply caustics or the cautery.

When there are several discharging orifices in the scrotum then it is well to open up the track to the point of common origin, but this is not essential.

Urethral stricture certainly seems to be less common; fewer cases come into the wards than formerly, and there are fewer cases of retention of urine as a complication. This satisfactory change is due to many causes: first, probably, to a less virulent form of gonorrhœal infection; next, to the more rational treatment of this complaint; and again, to the better habits of the people. There is less debauchery, and less intemperance amongst men, and no doubt the greater opportunities afforded of medical relief lead to earlier attention to their various ailments. Treatment by catheterism had to be abandoned in this case because of the pain, the profuse suppuration, and the periurethritis.

In another recent case, acute epididymitis—a not uncommon complication of any urethral instrumentation—arose and determined the cessation of treatment. Cystitis will follow catheterism however carefully conducted, and may necessitate the adoption of some other method. The more careful preparation of instruments has, happily, almost entirely removed this complication. Time was when septic cystitis and renal pyæmia not infrequently carried off a patient within a week of the passage of a catheter. A more dangerous complication of catheterism is a rigor. With all our asepticism this complication still occurs, the temperature rising suddenly to 103° or 105°, and a rigor of greater or less severity sets in. As a rule the temperature falls in a few hours, and rapid recovery follows, but death may ensue, as occurred in the ward two years ago in the case of a man long the subject of old stricture and renal disease.

For other reasons besides the irritation set up, dilatation by catheterism may have to be abandoned. The indurated material may be so hard and cartilaginous as to resist the pressure-absorption of the catheter. This is seen in old tortuous strictures when dilatation cannot be carried beyond a No. 6 or 7, at which calibre no stricture should be left.

Again, after being dilated to a No. 12, the stricture closes so that in two or three days only a small size, *e.g.*, a No. 7, can be passed; this is the so-called resilient stricture. A case of this kind was in the ward last year, and was treated by internal urethrotomy. A free division in such cases must be made, and where the urine is healthy there is no simpler or more speedy plan than the internal division.

Let me now say a word on the method of conducting dilatation by catheterism. A stricture may be dilated by passing an instrument from time to time, for example, once or twice a week, leaving it in a few minutes. The patient is allowed to go about his work, observing care as to diet, avoiding alcohol in every form, and keeping himself in good health, rather under than over-feeding. Many simple annular strictures can be dilated in this way. The best instrument to use is a conical steel sound with a short curve, or a solid conical bougie, for this latter is easier to clean than a catheter. This might be called *intermittent dilatation*.

The other plan is to introduce and retain the catheter, leaving it one, two, or three days, and then following with a larger size. This may be called *continuous dilatation*, and involves the patient laying up.

The terms *gradual* and *rapid*, sometimes applied, are not so accurate, for neither method can be called rapid. The term rapid dilatation may more correctly be applied to the passage of a series of graduated conical steel sounds at one sitting—a method I will consider later.

The method employed in this case was that of *continuous dilatation*. Pressure causes absorption, if continuous, and in the case of a stricture it effects this by giving rise to irritation, which is followed by exudation and softening of the indurated material. You will see that a definite pathological change must go on to effect absorption. Hence, when the material is cartilaginous and resists this irritation, it can only be removed by free division and suppuration.

The best catheter to use is the English red gum elastic, partly because it resists more effectively the action of the secretions, and partly because the eye is close to the end. Compare the French pattern, and you will note that beyond the eye there projects three-quarters of an inch of solid stem. This is liable to cause irritation. The greatest patience may be necessary, and much dexterity may have to be employed, to introduce a fine catheter, and remember that a No. $\frac{1}{2}$, once inserted, the easier passage of larger sizes is almost assured. In my day we *had* to get a catheter in, for Mr. Cooper Foster insisted that it could always be accomplished. It was no uncommon event to spend an hour over a case, using a No. $\frac{1}{2}$ or a No. 1, and then to be successful. To-day we operate more freely, but you may find yourselves

in situations where operation cannot be easily carried out, and then you will need the conviction that perseverance and dexterity may accomplish what is necessary. And make sure that the eye of the catheter is just within the bladder; as the urine flows withdraw the catheter till it ceases, and then pass it in till the flow returns; it is now in the right place.

There are various ways of tying in a catheter; the simplest is to tie it to the pubic hair, a plan suitable to large sizes. The smaller sizes, when softened by the warmth of the body, will come out, and for these, perhaps, the more suitable plan is to bring the linen threads along the penis and fix them with strapping.

A catheter may be left in safely for three days. When changed for a larger size the new one must be ready for introduction the moment the first is withdrawn, for contraction is apt to occur rapidly. We may advance one to three sizes, but it is most important never to leave one in that is held tightly. This will give rise to pain and periurethritis. A loosely lying catheter continues to give rise to absorption. You will know that a larger size may be inserted when the catheter is loose, or when the urine is passing by the side.

Dilatation must be carried to a No. 12, and then the graduated steel sound, 8 to 11, is to be passed, followed by a No. 10–12 or 13. This is to be repeated once a week, and the man who wishes to keep well will continue its use for months, and may require it for years. But then advice must be sought. Men going to India, for instance, are best provided with a steel sound, and the best pattern for personal use is this known here as Clutton's. Compared with this of Symes', or this of Lister's, you will see the curve is much smaller. This smaller curve renders it more easy and safe to introduce.

In my next lecture I propose to discuss the whole question of the treatment of urethral stricture.

Papers by Guy's Men.

Cowper, C. M. L., M.R.C.S. Eng., L.R.C.P.: Acute Rheumatism with unusual Sequence of Complications.—*British Medical Journal*, 10th April, 1909.

Hale White, W., M.D. Lond., F.R.C.P. Lond.: The Early Diagnosis and Treatment of Cancer of the Stomach.—*British Medical Journal*, 3rd April, 1909.

Handley, W. Sampson, M.S. Lond., F.R.C.S. Eng.: The Operation for Breast Cancer.—*The Clinical Journal*, 7th April, 1909.

The Wayward Wardmaid.

A patient wardmaid she—no sign of erudition
Fell from her lips, no thought save for the day
Entered her humble mind; for her life's lowly mission
Was but to work and earn a frugal pay.

A ward-made patient he—from sources accidental
His wound went septic and prolonged his stay;
But little cared he, for with yearnings sentimental
He loved that patient wardmaid as he lay.

Each morning with her pail she came the ward to brighten,
And round his bed did stay with beating heart;
With smile and chaffing word his lonely hours did lighten,
Nor thought she of the time when they must part.

Alas that it should be! These two, asunder riven,
Now both pursue a lonely course; and he
His patient wardmaid to forget has striven,
To welcome other ward-made patients, she.

"MERCURY."

Change of Address.

Fleet Surgeon Robley H. J. Browne, R.N., from H.M.S. *Venerable* to H.M.S. *Implacable*, Home Fleet.

Gerald Burton-Brown, M.D., from Milton Lodge, Iver, Bucks, to Old Orchard, Iver, Bucks.

A. C. Elliman, L.R.C.P. Lond., M.R.C.S., from 73, Southwark Bridge Road, London, S.E., to The Dunes, Southern Road, West Southbourne, Bournemouth.

S. F. Holloway, L.R.C.P. Lond., M.R.C.S., from Holmwood, Bedford Park, W., to 1, The Avenue, Bedford Park, W.

W. Norman May, M.D., B.S. Lond., from Ashleigh, Parkside Road, Reading, to The White House, Sonning, Berks.

A. H. Miller, M.A., M.B., B.C., from The Knoll, Woburn Sands, Beds, to 4, Ben'et Place, Lensfield Road, Cambridge.

Malcom K. Nelson, M.R.C.S. Eng., L.R.C.P. Lond., to Rockside Hydro, Matlock, Derbyshire.

(*The Editor will be very glad to receive a postcard with notes of any change of address.*)

Periodicals Received.—The Hospital; The Clinical Journal; The Polyclinic; Charing Cross Hospital Gazette; London Hospital Gazette; The M.S. Journal; St. Thomas's Hospital Gazette; South African Medical Record; The Medical Review; The Nursing Times.

Vaccines and the Opsonic Index.

A Paper read before the Guy's Physical Society, on 23rd January, 1909, by A. Norman Leeming, M.B., B.S.

Gentlemen,—To you all who have done me the honour of your presence this evening, I feel that something in the nature of an apology is needed; for, as you are aware, our subject is a field of much research and some speculation, and it was with temerity that I undertook the task of piloting you for a brief space amidst the shoals and quicksands of a subject rendered necessarily difficult by the limitations of our present knowledge.

It is not strange that this vaccine method of treatment should be looked upon askance by some, for, as Bacon puts it, "There is nothing makes a man suspicious much more than to know little," and in the minds of others who know more there is perhaps a feeling that some opsonists, vaccine-therapists, immunizators—call them what you will—have laid a claim to too much, and that the time has *not* yet arrived when our lancets and stethoscopes should be beaten into hypodermic needles and syringes.

The progress of therapeutics has been fraught with many disappointments, for not so many years ago the eyes of the profession were hopefully directed to anti-serums as being the cure, long sought after, which would nip disease in the inception; but as years have passed by the application of serum-therapy is seen to be *not* without limitations, and although this form of treatment has provided an efficient remedy for certain diseases, it has not so far justified the early prognostications of universal application. So in vaccines we should not expect to find a universal panacea, but rather a very useful adjunct to our present methods of treatment. It is in some such attitude as this that I would introduce to you the subject of "Vaccines and the Opsonic Index."

Strictly speaking, bacterial inoculation is *not* a new form of treatment. The pioneers of bacterial inoculation introduced the use of modified small-pox as a preventive measure. Jenner followed with his cow-pox, and in later years Pasteur, in 1880, introduced his vaccines for anthrax, and in 1885 his process of immunisation against the hydrophobia virus. It was in 1890 that Koch produced his *original* tuberculin, which consisted of a broth-culture, the tubercle bacilli being removed by filtration, and the solution concentrated by evaporation to one-tenth. Great hopes were raised by this being announced as a cure for consumption, but a more extended trial of this fluid produced a very widespread feeling of distrust against it, and for many years people looked askance at any mention of the term tuberculin. The reason for the failure is now obvious—the dosage was altogether too large and too frequent. Since 1890 many different forms of tuberculin have been invented, but I need trouble you by mentioning only two of them—Tuberculin O and Tuberculin R. In these preparations we have actual extracts of the organisms *themselves*, not the toxins produced in the medium around, as was the case in the original tuberculin. Tuberculin O is produced by taking highly-virulent cultures of tubercle bacilli, drying them in vacuo, and triturating them in a mortar. The powder thus produced is treated with distilled water and centrifugalised; the supernatant liquid, which is clear and opalescent, is "Tuberculin O." The residue is again dried and extracted several times, and the resulting extract is termed "Tuberculin R." To each of these preparations 20 per cent. of glycerine is added as a preservative.

It is this last preparation—Tuberculin R—which is used mainly at Guy's Hospital in the treatment of tuberculous lesions, and the dosage is arranged by weight of the dried powder. The most useful doses which I have seen used are ·001 milligrammes, ·0005, ·0004, ·0003, ·0002, ·0001, and ·00005. The last is usually reserved for commencing treatment in a young child, and the doses ·0001 and ·0002 are frequently used to commence treatment in adults. But it is necessary to add that other workers are in the habit of using very much larger doses than these, but we have found that as good or better results are obtained by using these small doses, with much less risk of doing harm. It is quite possible to give too much of a good thing, even tuberculin, and I was once told by a doctor that he was giving ·01 milligrammes of tuberculin every four hours to a child with tuberculous meningitis; such a dose, given every ten days, would be considered a large dose.

It was about the same time (1896) as Koch introduced his Tuberculin R, that Sir Almroth Wright published his monograph on the subject of preventive inoculation of typhoid fever, and it is due to Wright's monumental work that vaccines occupy their present position. His paper in 1906 showed that in a large number of soldiers exposed to typhoid infection the percentage incidence was less in those who had been previously inoculated with killed cultures of typhoid bacilli. Moreover, the statistics go to show that the fever was shorter and less severe, and that the percentage mortality was diminished.

In these early days, nothing was known of the opsonic index, and the inoculations were controlled by testing the bacteriolytic power of the blood. For as was well known at the time, when an animal is immunized against a bacterium, a substance appears in its serum with combining affinity for that particular organism, and if the serum of the immunized animal is added to an emulsion of the said organism, lysogenesis is seen; that is to say, the organisms become granular, swollen, and lose their motility. But there were some sceptics who suggested that the inoculation of killed cultures could have no possible effect on a person's powers of resistance. But Wright showed that by inoculating 1,000 millions bacilli typhosi, followed by 2,000 millions a fortnight later, the serum of the inoculated person developed a strong positive Widal reaction, which proves that an artificial immunity had been developed.

These, however, were rather large doses, much larger than those we now use to vaccinate against typhoid fever; for we find that 5 millions of bacillus typhosus, followed by 10 and 20 millions at ten days intervals, will develop the same immunity, and it is not surprising, therefore, to find that in those early days with the large doses a marked negative phase was produced, and the patient sometimes felt unwell for a short period. This "negative phase" has frightened many people off vaccines, and it has been suggested that the serum of an immunized animal should be injected along with the dose of vaccine, in order to prevent the negative phase; but I know of no series of cases in which this has been done.

We are now so familiar with the law of negative and positive phases, more particularly in reference to vaccine work, that it is of interest to know that this phenomenon was first set forth by Ehrlich and Bruger in reference to the reaction of immunization in a goat inoculated with tetanus toxin, and the curve given set forth the amount of antitropic substances excreted in the milk from day to day during the course of immunization.

Since these early experiments with typhoid fever above referred to, the use of vaccines has been extended from the purely preventive to the actual curative treatment of disease, and almost all the more usual bacterial infections are now being treated in this way; but it must be admitted that the acute diseases do not so readily respond to this method of treatment as do the more chronic; and this is not surprising since it does seem only reasonable that a patient whose powers of resistance are called upon to the full by a sudden invasion of organisms can hardly be expected to be any the better for a further dose of the same; this should be reserved for such time as his powers of resistance are recuperating, then a stimulating effect may be produced by a small artificial invasion.

The earliest curative successes were attained by staphylococcal inoculation for acne and furunculosis, but the method was rapidly extended to streptococcal, pneumococcal, gonococcal and bacillus coli complaints. Perhaps one of the last bacterial infections to respond in any way to vaccine treatment is glanders, for a vaccine of glanders bacilli produces only the shortest of immunities, so that no real positive phase is ever produced, and so far vaccines of this organism have usually been harmful. Recently an emulsion of glanders bacilli, which had been digested with pepsin and hydrochloric acid, was tried on a patient in this hospital, but no good result was produced.

Preparation of Vaccines.

Before proceeding further, it may not be out of place here to state that to prepare bacterial vaccines—which are sterilised, standardised emulsions of infecting organisms—it is customary to emulsify the culture of the organism on a sloped medium such as agar, in sterile 0·1 per cent. saline solution, then to pour the result into a sterile test-tube containing beads. These when shaken with the emulsion will effectually break up the large masses of growth, and as it is of obvious importance to render the emulsion fine and uniform, a shaking apparatus has been invented for the purpose, and the result is an emulsion of organisms mainly occurring in twos and threes.

The next stage of the process consists in finding the number of organisms per c.c. in this emulsion, and this may be performed in several ways. Some observers (Ref. 1) prefer a modified Thoma-Zeiss hæmocytometer, using a 5 per cent. Giemsa stain in 0·1 per cent. saline solution as a diluent, but the method used at Guy's has always been to take equal quantities of emulsion and of human blood from the observer's finger in a pipette, mix thoroughly together with citrate solution to prevent clotting, and spread in an even film on a slide. Dry and stain with Jenner or Leishman in the usual way, then by counting the number of red corpuscles and bacteria in ten different fields of the slide, the number of organisms per c.c. is expressed as a fraction of 5,000 millions, which is the number of red corpuscles in 1 c.c. of human blood.

Meanwhile the emulsion must be sterilised by placing it in a water-bath for one hour at 60° C., after which it is diluted down into several required strengths with sterilised distilled water. Several strengths are made, so that ½ c.c. contains variously 5, 10, 50, 100 and 500 millions of bacteria. To each strength a small quantity of tricresol or other antiseptic is added as a safeguard. Then it is customary to place the individual doses in small glass bulbs, which, when sealed up, are convenient and safe for use and transit, just the required quantity only being present. These bulbs and the doses of vaccine they contain are sterilised as before for one hour, and the vaccine is then ready for use.

As before stated, the number of organisms to be inoculated at one sitting will depend on several factors. Smaller doses will be used for acute disease than for chronic; for instance, a smaller dose of staphylococcus vaccine would be given to a case of acute osteomyelitis than would be given to a case of simple acne or furunculosis. Moreover, a larger dose can be tolerated by an adult than by a child, and by a strong patient than by a weakly; and in commencing treatment the cautious administration of small doses must precede the larger doses which are to follow. Furthermore, some strains appear to be more virulent than others. Suffice it to say on this point that there is good reason to conclude that as good results can be obtained with much smaller doses than it is the custom for many to use; for instance, we have seen cases of cystitis due to bacilli coli cured by injection of 5, 10 and 20 millions, whereas it appears the rule for many to use doses of 500 and 1,000 millions, and even more.

It is always the best plan to prepare the vaccine from the patient's own organism, but this cannot always be done quickly enough, and in that case "stock vaccine" should be administered in the interval. By "stock vaccine" is meant vaccine prepared from other patients suffering from a similar disease produced by the same organism. In many cases of urethritis it is often very

difficult to obtain the gonococcus in pure cultivation, for staphylococci and bacillus coli communis and xerosis bacillus overgrow it. In these cases a stock gonococcus vaccine, consisting of a mixture of many strains of gonococci from a similar source, is used. But some of the more chronic cases of gleet are actually caused by infection of bacillus coli communis or staphylococci. These cases are successfully treated by the administration of bacillus coli or staphylococcal vaccine prepared from the patient's own organism.

In all tubercular infections tuberculin—a stock material—is employed, for it takes several months to cultivate a growth of tubercle bacilli from a patient in sufficient quantity to produce tuberculin, and by some it is thought that the failure of certain cases to respond to tuberculin treatment is attributable to the fact that such stock tuberculin is used, and if tuberculin were made from the patient's own organism, success would be obtained.

There is evidence to show that different strains of tubercle bacilli show different properties, and it may be observed in this connection how rare it is for patients suffering from lupus to contract any other tuberculous trouble. This may perhaps mean that the tubercle bacillus causing lupus differs from, say, that causing phthisis; but when injected into a guinea pig they both produce the same miliary tuberculosis.

The Estimation of an Opsonic Index.

The following is Wright's modification of Leishman's method of estimating the phagocytic power of the blood. The opsonic index really expresses the ratio between the number of organisms devoured by a certain number of phagocytes in the presence of the patient's serum as compared to the number of organisms devoured by the same number of phagocytes in the presence of the same quantity of a normal person's serum, the latter number being taken as unity.

To estimate an opsonic index, the following articles are requisite: First, blood cells; these are obtained by collecting blood from anyone, whether healthy or unhealthy, and preventing it clotting by mixing with citrate solution, centrifugalising to obtain the blood cells, and then washing five times with normal saline, and centrifugalising after each wash. Finally, the supernatant fluid is pipetted off and the cells are ready for use. The object of this washing is to remove all opsonins from the cells obtained. Secondly, an emulsion of the organism to which the index is required is necessary; this is made by emulsifying some growth from an agar-slope in saline solution, and centrifugalising to remove clumps of organisms. The required density of the emulsion can only be obtained by practice, but a good emulsion is usually slightly opalescent. Finally, the blood serum of the patient and of a normal individual is necessary; this is collected in Widal tubes, and as the blood clots so the serum separates out.

Then pipettes are taken, fitted with rubber teats, and a mark is made about one millimetre from the end of each; a quantity of the blood-cells is sucked just up to the mark on the pipette, then a small bubble of air is admitted and a further volume of blood-cells is sucked up into the pipette and another bubble. Secondly, one volume of the emulsion of organisms is taken, another bubble allowed admittance, and finally one volume of the serum whose opsonic index is to be tested is sucked up. Then the contents of the pipette are squirted out on to a slide and thoroughly mixed by drawing up into the pipette several times. Finally the mixture is drawn up into the pipette, the end of which is then sealed in a flame. The same process is repeated with a normal serum, and the two are placed in the incubator at 37° C. for fifteen minutes, except if the *tuberculo*-opsonin index is being tested, when the mixture is incubated for twenty-five minutes.

When this time of incubation has passed, films are made of the mixture and stained by Leishman; or if tubercle bacilli are used, the Ziehl-Neelsen stain is made use of. The slides are then "counted"—that is to say, the number of organisms inside 100 consecutive polymorphonuclear leucocytes are counted in each slide; then the number in the patient's slide compared with the number in the normal individual's slide represents the opsonic index.

One part of the process which admits of some variation is the number of volumes respectively of cells, emulsion and serum taken. Every worker has his own favourite proportion, but providing the same is used for the patient's as for the normal slide, the results will be concordant.

This method of estimating a patient's powers of resistance against any organism, although originated by Leishman, was applied as a guide to vaccine administration by Wright; and the guidance which is furnished in, for example, the administration of tuberculin may be summarised as follows:—If one week after the administration of tuberculin the opsonic index has *fallen lower*, then it is concluded that the dose was too large, for the negative phase has lasted too long. If one week after the dose of tuberculin is given the opsonic index to tubercle bacilli is *little altered*, then it is concluded that the dose was too small. Finally, if one week after the inoculation the opsonic index shows a *marked rise*, then it is concluded that the correct dose was given. So that it seems that the great value of the opsonic index is to indicate whether a negative phase is present or not: this is of great importance, for it is obvious that when a dose is administered during a negative phase a second negative phase is piled on the first, and harm will come of it. But it might be hoped that having found the duration of the negative phase in a patient for any given dose, all other patients would react similarly; but this, unfortunately, is not so, and there is great variation in the way in which patients tolerate doses. One can only give it as a general rule that the negative phase after a suitable dose of tuberculin lasts about a week, and after a suitable dose of other vaccines rather less than a week. In an investigation into this point Lawson and Stewart (Ref. 2) found that in 120 cases of phthisis after tuberculin administration, 15 cases showed *no* negative phase, and in 43 the negative phase lasted over a week.

Investigations into the opsonic index show that inoculations of bacterial vaccines are not the sole means of raising the opsonic index; for Bier's passive-congestion treatment, nucleo-proteid injected hypodermically and yeast taken by the mouth all do the same; and it is stated that the injection of anti-sera—such as anti-diphtheritic serum—produces a temporary fall followed by a subsequent rise in the tuberculo-opsonic index.

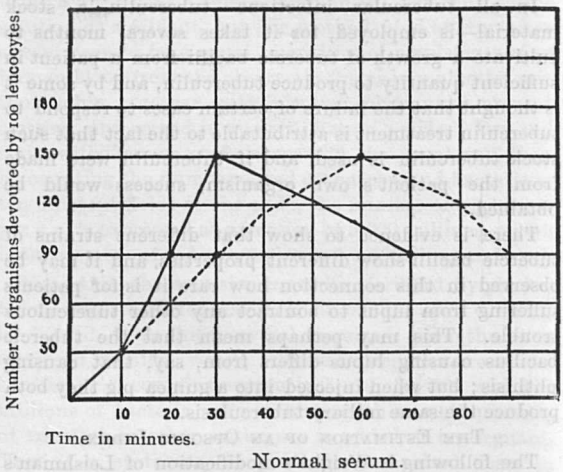
Objections to Opsonic Index.

Having briefly indicated the technique of opsonic estimation, it need hardly be said that the whole process and the conclusions gathered from it have been vigorously attacked; and I propose to devote some space to these arguments. For instance, it was said that an absolutely uniform emulsion was unattainable, but ingenuity has got over that difficulty by the mechanical shaker. Then it was advanced that tubercle bacilli—*e.g.*, in the case of the tubercle opsonic index—were not all of equal size, and surely a bacillus *three* times the average size would use up more opsonin than one less bulky. It is on this basis that someone has suggested that the sum of the lengths of the bacilli should be compared rather than their number in computing the opsonic index. A certain set assert that opsonins are not specific, and that a rise or fall in the opsonic power of a serum to tubercle is always accompanied by corresponding changes in the index to other organisms, but one can readily show slides in which although both cocci and bacilli had been exposed to the action of phagocytes in the presence of a certain serum, yet enormous numbers of the one and not of the other have been engulfed. But there is considerable evidence (Ref. 3) to show that much the greater proportion of opsonin present in normal serum is non-specific.

It has further been shown that phagocytes have the power of engulfing organisms *without* the aid of serum at all, and this property, termed "spontaneous phagocytosis," is said not to be shared to an equal extent by all leucocytes from the same individual. But there is another set of arguments which is based on the eccentricities of behaviour of serum, when placed under artificial conditions, which attend these experiments. R. E. French showed that when serum is kept, its opsonic power undergoes depreciation, losing half its opsonin in ten days, and that some sera do not depreciate so rapidly as others, so that this fallacy can only be avoided by estimations soon after the blood is collected. Again, it has been observed that the effect of dilution on different sera is not the same (Marshall, *Journal of Pathology*), for whereas the opsonic power of *one* serum may be halved by its dilution, that of *another* may be multiplied; and certainly when doing an opsonic estimation the serum is virtually diluted.

The process of phagocytosis resembles all those chemical processes where an equilibrium has to be established, and the establishment of that equilibrium, which shall be the finale of the experiment, does take a longer period for one serum than for another; and it is asserted by some observers that the equilibrium between tubercle bacilli and phagocytes is not brought about within the twenty-five minutes which is the usual time for incubating a tubercle opsonin.

In the imaginary cases given in the diagram it will be seen that, although the curves each reach the same height, one (the dotted line) takes the longer, and if the opsonic index be calculated when 30 minutes phagocytosis has been in progress, an entirely different result is obtained to that when 60 minutes have elapsed. The curves given do not represent an actual experiment, but are intended to show the trend of this argument.



But should these objections find their removal in the light of further knowledge, there is still a set of arguments which show that this process in practice is capable of much misconception. Take what is termed the "personal factor." In one case, for example, three observers made the following counts (Paper by R. E. French, *Practitioner*, May, 1907):—

Observer.	Patient's Slide.	Control Slide.	Index.	
R. E. F.	127	63	2·09	Average 1·483
A.	62	72	0·862	
B.	101	64	1·587	

So that, with precisely the same slides to work with, the deplorable discrepancy, ranging between 0·86 to 2·09, is shown.

Then there may be considerable difficulty in being positive that the serum presumed to be normal comes from a person free from tuberculous disease—for amongst the workers at St. Mary's Hospital, for example, who from time to time offered their blood as a standard in opsonic estimations, tubercle has been diagnosed seven times; such is the strenuosity of this work! So that we are to some extent prepared to hear from one observer (Ref. 4) that he found variations from 28 per cent. to 200 per cent. in so-called healthy opsonic indices,

although another observer (Fleming, in *The Practitioner*, May, 1908) finds that in 76 per cent. of normal sera the index works out to tubercle at between 0.95 and 1·05, and in 97 per cent. the index is between 0·90 and 1.1. These latter results are remarkable in the extreme, considering that 635 estimations of normal sera were taken by this investigator.

In past times every attention was paid to local factors in the etiology of disease; for instance, injury and strain were well known as frequent precursors of tuberculous trouble, especially in joints, and recently, to bring such observations into line with the knowledge of the many antibodies, etc., in the blood, it has been presumed that such injuries could *only predispose* to tuberculous disease at such times as the resisting power of the blood was low. This is orthodox teaching, to which we all subscribe, believing that the blood as a circulating tissue cannot fail to show to a large extent the relations of the body as a whole to any organism.

But there is much evidence to show that there are local factors in disease which we wot not of, and if healing is due to increase in general powers of resistance, why does a disease which is healing in one part progress rapidly in another, which is so often seen in cases of lupus? Then we are familiar with diseases which have become cured notwithstanding that the opsonic index has remained unaltered. Moreover, in infants a *low* opsonic index to tubercle is the rule rather than the exception (Ref. 5), and is not inconsistent with the best of health; indeed, the child may be thriving well with a declining index.

Bearing on this question of local factors in disease, I should like to adduce some figures which were collected by Watson Cheyne (Ref. 6). He collected a large number of cases of tuberculous disease of each joint, and marked out the proportion which occurred during each decade of life. And he found that, for example, in his series there were *no* cases of hip disease in the fourth decade of life, *whereas* 36·6 per cent. of his tuberculous knee cases occurred in this decade. Again, in the *third* decade, 18·2 per cent. of his knee cases were found, whereas only 4·8 per cent. of his hip cases. It is to be noticed that the percentage incidence of hip and knee disease in the first and second decades was much the same (see table).

	First decade.	Second decade.	Third decade.	Fourth decade.	Fifth decade.
Hip ...	30·2	29·3	4·8	—	12·5
Knee ...	29·5	22·8	18·2	36·6	6·2

These figures seem to point in no uncertain way to the importance of local as opposed to general factors in the incidence of disease.

Now we have stated the worst about the opsonic index, it remains for me to add that there is a much brighter side to the question, and I cannot improve on Sir Almroth Wright's words, which put the case in a nutshell (Ref. 7). "The utility of the information furnished by the opsonic index may be considered under two headings. We may consider first *what has been learned in the way of principles and facts of general application* by the measurements of the opsonic index, and secondly *what help is furnished by estimations of the opsonic index in the treatment of a case.* A few words will suffice in connection with each of these questions. In connection with the former, I would draw your attention to the fact that—if we except the case of immunization against typhoid, where the changes in bactericidal and agglutinating powers of the blood have served as a guide—almost everything that we know of the laws which govern the immunising responses which are evoked by bacterial vaccines in man, everything that we know of the phenomenon of auto-inoculation, and everything that we know in respect to the proper dosage of our vaccines, all are derived from the opsonic index. If any light has been thrown on the machinery of immunization of man; if it has been possible to substitute for the excessive doses of tuberculin which were originally employed, as a first step, the maximal doses which could be administered without injury, and afterwards, both in connection with a number of other bacterial vaccines, the minimal doses which can be employed with effect, and if we are now in a position to interspace our doses of vaccine in connection with scientific principles, all this is due to the technique of the opsonic index. When we turn from the general to the particular, and ask what help we can gain from the determination of the opsonic index in the treatment of individual cases, I would point out that we can, by the aid of the opsonic technique, determine for each individual case exactly the same points in connection with the dosage, as have already been determined by the technique for the average case."

Wright goes on to say that he does not think an opsonic index can be determined with the same exactitude with which the position of a liner crossing the Atlantic can be computed, and we are inclined to agree in all that is said in the above quotations—providing that the index be determined by counting no less than 100 cells in each slide—that the counter does not know whose slide he is counting, and that all slides which are difficult to count, because of the sparsity of leucocytes, be abandoned as useless.

It remains to be said, however, that the vaccine method of treatment can be carried on, and with no inconsiderable success, without estimations of the index in certain cases, reliance being placed in previous experience of cases where the opsonic index was taken, and using all the clinical manifestations as a guide for the dose of the inoculation. R. W. Phillips (Ref. 8) has published a list of cases treated with tuberculin. In one section frequent estimations of the opsonic index were made; in the other section no estimations were made. He found no difference in the results, although many of the cases did extremely well. Many others have met with similar experience, and the conclusion that one makes is that if vaccine inoculation is to

become a usual form of treatment in general practice, it will be without opsonic estimations, for neither has the practitioner got the time nor can the majority of patients afford to pay for the laborious work required to estimate an index with accuracy.

In this connection, Latham's work with horse-serum and tuberculin administration by the mouth is of great interest, for he has sought to control his doses (given by the mouth) solely by clinical manifestations, and in phthisical cases he has laid most stress on the temperature. In his earlier papers he endeavoured to prove that the temperature of the patient and his opsonic index were antagonisms, that is to say, when the temperature is up, the opsonic index is down, and *vice versa*. As everyone knows, the temperature of a phthisical patient varies from hour to hour, and Latham considers that the opsonic index does the same. So we are not surprised when he says that to obtain accurate conceptions, a patient's opsonic index ought to be taken three times a day. With regard to the relation between the opsonic curve and the temperature chart, we certainly consider that there is a very definite relation in cases of bacillus coli cystitis.

The main objections to Latham's excellent work are that it is so difficult to prove that tuberculin is absorbed when given by the mouth, since the effect of a dose of tuberculin is very difficult to follow in a phthisical patient, on account of the continual auto-inoculation which goes on, and the consequent fluctuations in the opsonic curve. When a consumptive coughs or takes exercise he inoculates himself with his own tubercle bacilli, and Latham considers that some patients actually cough themselves to death in that way, and the other objection is that by the mouth the accurate dosage of tuberculin is impossible. To demonstrate that tuberculin *is* absorbed when administered by the mouth, Latham has observed that by gradually raising the dose by the mouth up to one milligram of tuberculin, a patient is able to tolerate one-tenth milligram subcutaneously without toxic symptoms—a dose which certainly could not be tolerated in the ordinary way. He considers that a dose of tuberculin by the mouth is equivalent to half that dose given subcutaneously. The administration of horse serum increases the amount of "complements" available in the body, and some have tried the effect of *local* treatment with horse serum for tuberculous and other long-standing sinuses, sometimes with very good results. Occasionally, however, harm follows, and collapse, serum rashes, and pyrexia are noted by Latham. Moreover, great care must be taken in injecting serum locally into a sinus that the material is quite *fresh*, for it is such an excellent culture medium for organisms that acute septicæmia is occasionally traceable to its use.

Before concluding this paper, I should like to hand round a classified list of the cases which were treated in the Vaccine Out-Patients' Department at Guy's. The list comprises all those patients which were seen during the first six months of the existence of this new department, from March to September 1908, except such as were erratic in attendance, in whose cases no opinion of any value could be formed as to the result of inoculation.

You will observe that many have been under treatment for a longer period; most of these were tuberculous cases, and this treatment was commenced two or three years ago, before the regular vaccine O. P. was organised. This list does not include cases treated *in the wards* by vaccines, and in some cases the patients journeyed long distances to receive their hypodermic inoculation.

Care has been taken to pronounce a cure to be "cured" only when all the signs have cleared up, and after a reasonable time has elapsed, for it is admitted that recurrences are very common in these bacterial diseases. Moreover, certain diseases seem to be amenable to treatment only up to a certain point. Beyond that point, although the progress of the disease has been allayed, the consummation of cure cannot be reached. This seems to me to be markedly the case in lupus, where although tuberculin inoculation undoubtedly does cure many, there is still a margin of cases who, reaching a certain stage, remain stationary under treatment; and yet if tuberculin be withdrawn, they relapse again.

The short time during which this department has existed has been sufficient to show that the cure of tuberculous bone and joint disease takes time—tuberculous granulation-tissue cannot be absorbed in a day, nor yet in a month—so that we are not surprised to hear that definite improvement in these tuberculous joint cases usually takes several months to elicit; and such treatment must always be combined with all the usual conservative measures, such as rest, fresh air, good food, etc. On this account it will be readily understood how difficult it is to state how these cases would have progressed *without* tuberculin treatment, seeing that very fair results are so often obtained with the usual measures.

On the whole, the treatment of tuberculous joint disease with tuberculin is successful, and some of the cases on the list have been extremely so (*e.g.*, the first three on list), but in a few very little response was obtained; we are inclined to think that senile tubercle does not respond well to tuberculin, *e.g.*, Case 4, aged 57.

Turning to the treatment of gonorrhœal joints—monarticular and polyarticular—excellent results have been obtained, in most cases by injecting a *stock* polyvalent gonococcus vaccine. The dosage varied from 5 to 25 millions of cocci.

In furunculosis of the skin, vaccines have obtained a well-recognised position in therapeutics; but from this list of cases it will be seen that the cure is often tardy—although *one* severe case, which had resisted all other forms of treatment for months, was cured in six weeks (Case 4 on the list)—the average time taken to effect a cure is much longer, usually several months. It may be mentioned that the cases in which culture reveals the staphylococcus *albus* are much more obstinate than those in which the staphylococcus *aureus* is the invading organism.

We have had quite a large number of lupus cases, mostly, as one naturally expects, of the face. The opsonic treatment has been combined with light treatment in most cases—the Finsen lamp, X-rays, and ultra-violet rays being employed. These lupus cases are very slow. Looking down the list you will observe that the average time the cases have been attending *us* is eighteen months—sometimes they go for a long period with no apparent improvement; but the curious part is that they relapse so quickly if they cease these attendances. Sometimes, when the opsonic index remains high, and the patient is still under treatment, the disease, healing in one place, will break out in another. This phenomenon, which occurred in Case 6, baffles one's perceptions of *general* immunity, and emphasises the importance of local factors of resistance.

How far the light treatment has contributed to the cures and to the improvements under treatment is difficult to estimate, but some think that the benefit from the rays is due to the *hyperæmia* which they produce, and this floods the tissues with fresh blood serum which is rich in opsonins. It is by flooding the tissues with fresh opsonins that Bier's passive hyperæmia acts in the treatment of lupus and many other diseases.

With the treatment of tuberculous adenitis with tuberculin I have by no means been impressed; several of the cases have rapidly required surgical intervention, and although the patient puts on weight and improves generally under tuberculin, there is in most cases little improvement manifested in the glands themselves. The way in which so many of these tuberculous cases put on weight is quite remarkable, and is one of the most hopeful features about tuberculin administration.

From cases of frontal and ethmoidal sinus disease, Friedlander's bacillus, pneumococci, micrococcus catarrhalis, staphylococci and streptococci are cultivated, but cultures from our cases revealed Friedlander's bacillus in one, and staphylococci in the other two. Probably the staphylococcus is only a secondary infection, and if this is so, a reason is afforded for the slow response which these vaccines elicited in our cases, for in only one case out of our three was any considerable benefit derived.

Turning to pyorrhœa alveolaris, we have a disease which has long resisted local treatment, and dentists have readily turned to a new method to combat what is an extremely common, obstinate, and unpleasant affection. It is very pleasing to note that every case except one out of eleven has done extremely well under vaccine treatment; three of them were due to the invasions of the M. catarrhalis, four to streptococcal infection, and one to a staphylococcus, the rest (three) being mixed infections of catarrhalis and streptococcus. It was one of these latter which resisted treatment for a time; it was an extremely acute case, and although the disease had only been noticed for one week when we first saw him, the teeth on the lower jaw were bathed in pus. He lost most of the teeth in his lower jaw, but those in the upper jaw were saved.

The average time taken to cure these cases is four months, and the vaccine treatment must be combined with mechanical cleansing by a dentist.

Our cases were given doses ranging from five to twenty-five millions of the organisms named above, and usually at intervals of ten days or so.

On the whole, one is inclined to think that of all our cases those of pyorrhœa alveolaris have responded best to treatment.

We have not had many cases of tuberculous peritonitis at Out-patients, many more of these cases being treated in the wards. Of the three cases in the list, one case was hopelessly far gone with an umbilical fistula and extensive phthisis; another was a young man with intermittent attacks of diarrhœa over a long period, which remained much the same under treatment. The third was a case of tuberculous peritonitis limited to the pelvis in a woman. She made great improvement, as shown by absence of pain and increase in weight during the four months I saw her.

We had five cases of tuberculous laryngitis, and all except one were markedly improved by tuberculous injections, and one is pronounced quite cured by Mr. Steward. She has had injections for *eighteen* months. Another has been treated for two and a half years, showing that this form of treatment must be persisted in to reap good results. One case (D. S.) improved for eight months and then severely relapsed, and is now lying in a precarious condition in the medical wards.

Of diseases of the eye, two cases—one of tuberculous choroiditis, the other of tuberculous conjunctivitis—were cured by tuberculin.

Cases of tuberculous cystitis, if uncomplicated, no doubt do well with tuberculin treatment, but in our experience so many become complicated with, or are the sequence to, tuberculous disease in other parts of the genito-urinary tract that the results are not striking. Some of these cases of tuberculous cystitis become mixed infections from bacilli coli communis invasion, and then a coli vaccine must be added to tuberculin treatment. Our uncomplicated cases show improvement, but many of the other cases have not been observed sufficiently long to give an opinion.

Cases of chronic gleet, as above stated, are usually due to mixed infections, the original gonococcal lesion being complicated by staphylococcal and bacilli coli invasion. Of our two cases up till September, 1908, one was cured and the other benefited by treatment with staphylococcal vaccine. We had a case of double tuberculous epididymitis who seemed to be kept fit by tuberculin injections; his improvement in weight and general condition was very marked under the treatment.

The List of Cases will be published in our next issue.

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4. North. New York Med. Journ., 1907, p. 1148.
5. Wells. The Practitioner, May, 1908.
6. Lancet, 1908, vol. i., p. 1818.
7. The Practitioner, May, 1908.
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Notices.

Guy's Hospital Dental School.

Travelling Scholarship, 1909.

A Travelling Scholarship of the value of £100 will be awarded in June, 1909. The Scholarship is open to Licentiates of Dental Surgery of the Royal College of Surgeons of England who have been educated at Guy's Hospital Dental School.

Names of applicants for the Scholarship must be sent on or before the 1st June, 1909, to the Dean, from whom further particulars may be obtained.

The London X-ray Convention.

A Convention, which will include all branches of Medica Electricity, will be held in London from July 5th to 9th, 1909.

The Inaugural Meeting, the General Meetings, the Demonstrations and the Exhibition will be held at the University of London, University College (Gower Street, W.C.).

The Exhibition will include all classes of Electrical and Physical Apparatus for Medical Treatment. It will be held contemporaneously with the Convention, and it is hoped that it will give a much-needed stimulus to the manufacture of X-ray and other apparatus.

One afternoon session will be allotted to the demonstration of Novelties in apparatus by makers and inventors, who will thus have an opportunity of showing their own instruments. These particular demonstrations will not be followed by any debate or criticism.

Delegates will be present from America and the Continent, and representatives of the various Foreign Governments will be invited to take part in a discussion as to the best means of providing apparatus and training for the Army and Navy.

The papers and debates will be in English. Papers in French and German will be accepted provided a *résumé* of such papers is sent in English. All papers will be reported either *in extenso* or in abstract in the Archives of the Röntgen Ray.

As this is the first English-speaking X-ray Congress on this side of the Atlantic, it is hoped that a number of practitioners from America and the Colonies will be present. Several distinguished continental scientists and physicians have already signified their intention of being present and reading papers.

Members of the Convention will be asked to pay a subscription of One Guinea, which will be devoted to an Entertainment Fund. This will entitle them to a badge of membership which will admit to all Entertainments in connection with the Convention.

All medical practitioners are invited to attend the Exhibition, the Demonstrations and the Meetings, and to take part in the discussions, to which they will be admitted on presentation of their visiting cards.

Executive Committee:—W. Deane Butcher.
Lewis Jones, M.D.
Reginald Morton, M.D.

All communications to be addressed to Ernest Schofield, Organizing Secretary of the X-ray Convention, 11, Chandos Street, Cavendish Square, London, W.

Appointments.

Civil.

Nash, L. G., M.R.C.S. Eng., L.R.C.P., has been appointed District Medical Officer of the Newport Pagnell Union.

Nelson, Malcom K., M.R.C.S. Eng., L.R.C.P., has been appointed Resident Physician to the Rockside Hydro, Matlock.

Naval and Military.

Fleet Surgeon R. D. Fasken, R.N., has been appointed to the *Terrible*.

Captain H. B. Foster, M.B., I.M.S., has been appointed Civil Surgeon at Serampore.

Lieutenant G. E. Malcomson, M.D., I.M.S., has been posted to the Bombay Jail Department.

Lieutenant A. T. Densham, M.B., I.M.S., has been appointed Specialist in Otology, Laryngology, and Rhinology to the Lucknow Division, Indian Army.

Births.

FRENCH.—On the 12th April, at "Ranmore," Burgh Heath, Surrey, the wife of Ronald E. French, M.A., M.B., B.C., of a son.

RANKINE.—On March 17th, at Westfield House, Roweltown, Carlisle, the wife of J. L. Rankine, M.R.C.S., of a son.

THOMAS.—On April 6th, at Bank House, Brecon, the wife of Dr. T. P. Thomas, of a daughter.

Deaths.

BUTT.—On March 19th, at Tunbridge Wells, Frank Kernot Butt, M.R.C.S., L.R.C.P., late of Calcutta, aged 46.

ROBERTS.—On March 31st, at the Royal Naval College, Dartmouth, Cadet Gerald Kett Roberts, R.N., son of Dr. Reginald J. Roberts, of Ventnor, on the eve of his fifteenth birthday.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

May.

Sat. 1. Lawn Tennis Trial Game.

Mon. 3. Summer Session begins.
Final M.B., B.S. Lond. begins.
Clinical Lecture by Mr. Bellingham Smith (Gynæcology), 1.15 p.m.

Thur. 6. Primary Fellowship, R.C.S., begins.
Messrs. Dunn and Rowlands' take-in (Messrs. Lobb and Plumptre).

Mon. 10. Clinical Lecture by Sir Cooper Perry (Dermatology), 1.15 p.m.

Tues. 11. Musical Society's Concert, Court Room, 8 p.m.

Wed. 12. London University Presentation Day.

Thur. 13. Sir Alfred Fripp and Mr. Turner's take-in (Messrs. Price and Crook).

Fri. 14. Final Fellowship, R.C.S., begins.

Passim.

THE summer session opening to-day brings us a number of new men and new readers, and to all these we wish to extend the heartiest of welcomes. The October entry on their arrival are greeted in these columns by a good deal of advice and admonition, but the May arrivals are spared anything of this nature. We are sometimes inclined to agree with the eccentric author of "*Lavengro*":—"Advice! words, words, words; friends, there is a time for everything, there is a time for a cup of cold water; there is a time for strong meat and bread; there is a time for advice, and there is a time for ale; and I have generally found that the time for advice is after a cup of ale." We cannot offer our new companions a cup of ale, so we will withhold the advice also; but we can welcome them to the arms of the hospital (metaphorically), and congratulate them most sincerely on becoming "Guy's men."

THE Musical Society is giving its last concert for the present season on Tuesday, May 11th, and on this occasion, for the third time in the history of the society, the choral and orchestral sections will collaborate. The programme will include selections from Bach and Mozart, by the orchestral section, and the choral section will contribute part-songs, quartettes and solos. Tickets, price 2/6 as usual, can be obtained from the Matron, Sister Ethel, Sister Surgery, and the Hon. Sec., Mr. Douglas A. Mitchell. Nurses' tickets, price 1/-, may be obtained at the Matron's office.

ANOTHER dinner of Guy's contemporaries is to be held in the near future. This is the fifteenth annual meeting of the Guy's '89 Club, which will take place at the Hotel Cecil on Wednesday, May 12th. The Secretary, E. F. H. Hardenberg, Duffield House, Watford, hopes every member will endeavour to attend, and he will be glad to receive notice of any member's change of address.

MR. CLEMENT LUCAS has kindly sent us a cutting from the *Daily Graphic* of November 6th, 1894, describing the fatal Alpine accident on the Zinal Rothhorn, in which the late Dr. Horrocks so miraculously escaped with his

life. A brief description of the accident appeared recently in our columns in the course of Dr. Taylor's obituary notice of Dr. Horrocks, but any of our readers who are interested in the matter will find a longer account, from the pen of Dr. Horrocks himself, in our issue of November 17th, 1894, together with reproductions of the sketches which appeared in the *Graphic*.

MR. ARBUTHNOT LANE is visiting the United States again during the present month in order to read a paper on the Operative Treatment of Chronic Constipation before the American Surgical Congress, and another on the Treatment of Fractures before the American Medical Association.

MR. W. W. COOK has been appointed Obstetric Resident, commencing his duties on May 1st.

CAPTAIN WATTS, I.M.S., whose article on "Plague in a Punjab District" appeared in our last issue, has sent us the following amusing report on rat destruction sent in to him as the assistant Plague Medical Officer for the Ambala District. "Sir, (1) I have the honour to inform, that, 207 rats have been catched and destroyed at Kharar with 60 traps, from 7th to 13th March 09. (2) I have pleasure to inform you, that, one mice (*chuhi*) delivered two childs in a trap—on the 13th March 09, morning at 9 a.m. This is the time of the pregnancy of the mice or *chuhies*." Note the loving care with which the time—"morning at 9 a.m."—when the happy event took place is recorded.

THE following Blues and Half-blues have been awarded by the Blues Committee:—For Rugby Football, blues to G. E. W. Lacey, A. L. Stokes, C. H. Medlock, C. S. R. Roberts, W. S. Stranach; half-blues to W. T. Clarke, V. Glendining, W. J. D. Smythe, L. C. D. Irvine, A. E. Danby. For Association Football, blues to H. C. Rook, K. H. Hole, A. H. Crook, C. W. Greene, D. A. Mitchell, T. Lewis Jones; half-blues to J. A. Edmond, K. E. Keer, D. Wain, H. Harrison. For Hockey, half-blues to M. Pern, F. Kahlenberg, A. F. Camp, E. P. Poulton. For Cross-Country a half-blue to W. K. Fry.

IT is generally admitted that the department where the unqualified man has the best opportunities for cultivating his powers of diagnosis is the Front Surgery. In the "Front" alone can the dresser see cases which have never been examined or discussed before; in the wards and Out-patient department there are other people's findings and opinions to bias him, but in the Front he is face to face with a real case for diagnosis. He is directed by the authorities to write his diagnosis and treatment, with his initials and the date, on the white card which he gives to the patient. So far, so good; but in nine cases out of ten the dresser never hears of the case again; it is seen and diagnosed at Out-patients, but the dresser seldom hears whether his diagnosis has been confirmed or rejected, except when he has committed some glaring error, and that is the tenth case, and his friends will take care that he hears about it. This system diminishes very much the value of the most educational part of the dresser's appointment. We wish to suggest a simple method whereby those white out-patient cards might be utilised to the dresser's advantage.

IT would be a perfectly simple matter for the assistant surgeon's or physician's clerk at Out-patients to write his chief's diagnosis, and in some cases his treatment, on the back of the white card which the patient brings from the surgery. These cards could then be filed, and would be available at any time for the dresser to recover those bearing his own initials, when he would have the advantage of seeing his own diagnosis and treatment, and the physician's or surgeon's, in glaring contrast. The system would be quite simple, for the cards need not be kept more than a week on the file. Moreover, it would do the clerk no harm, for he would appreciate the more the doubts and difficulties of diagnosis in the "Front," and learn some mistakes to be avoided when his own turn there arrived. It may be said that it is possible, under the present system, for the dresser to hear the later history of the cases which he sends to Out-patients, but finding out this information is generally so tedious a process that it is not worth the labour. By utilising the

white cards in the way we have suggested, the dresser would be able in every case to learn the fate of his diagnosis; if it should be confirmed, there is another thrill of satisfaction for him! If it should be pitilessly rejected—to take the other extreme—he will learn something, for it is on foundations of "bricks" such as these that his powers as a diagnostician are built.

A discussion on the subject of "Vaccine Treatment" will be opened by Dr. Hale White and Dr. Eyre in the Therapeutical and Pharmacological Section of the Royal Society of Medicine, on Tuesday next, May 4th, at 4.30 p.m.

We regret to announce the death of Mr. Simeon Snell, F.R.C.S. Edin., D.Sc. Sheffield, which took place on the 17th of last month at his residence, Moor Lodge, Sheffield. Mr. Snell was the President of the British Medical Association for the year 1908–9, and at the time of the annual meeting at Sheffield last summer he was far from strong in health, and was obliged to delegate many of his duties in this capacity. Born in 1851, near Launceston, Mr. Snell came of a family of doctors. He received his medical education at Leeds, and afterwards at Guy's. After leaving here, he began to follow his speciality at the Moorfields Hospital, and later, when he settled in Sheffield, he was appointed Honorary Ophthalmic Surgeon to the Sheffield Royal Infirmary, a post which he continued to hold until his death. He was energetic in the interests of the Sheffield Medical School and in the foundation of the Sheffield University. The very large clinical field for the study of accidents and diseases of the eyes which exists in Sheffield afforded him scope for much new work, especially in relation to the association of work in factories and mines with eye injuries. He was a pioneer in the use of the electro-magnet in ophthalmic surgery and wrote a book on the subject. Besides his actual professional work he was active in the interests of the profession for many years as the founder and Editor of the *Sheffield Medical Journal*, latterly re-named the *Quarterly Medical Journal*. When the British Medical Association met at Sheffield last summer, Mr. Snell was unanimously recommended by his local colleagues for the post of President, and this high distinction formed a honourable termination to a distinguished career.

Papers by Guy's Men.

Hertz, Arthur F., M.A., M.D. Oxon., M.R.C.P. Lond., and W. Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng.: An Enormous Fæcal Tumour in a Girl with Congenital Abnormalities of her Pelvic Viscera. Illustrated.—*The Lancet*, April 24th, 1909.

Shepherd, Cyril, L.R.C.P. Lond., M.R.C.S.: Congenital Dislocation of Lens. Illustrated.—*British Medical Journal*, April 17th, 1909.

Spriggs, N. I., M.D., B.S. Lond., F.R.C.S. Eng.; Delayed Delivery in a Case of Central Placenta Prævia, with Remarks on the Treatment of the Latter.—*The Lancet*, April 24th, 1909.

Thompson, J. Ashburton, M.D., D.P.H.: Whole Time Medical Officers of Health.—*Australasian Medical Gazette.*—March, 1909.

Golfing Society.

A monthly medal competition was held on Wednesday, March 31st, on the links of the West Essex Club.

The winner was V. Townrow with a score of 101–12–89.

Medal competitions will be held on the first Wednesday in each month.

The next competition will be on Wednesday, May 5th.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Bier's Treatment by Passive Hyperaemia.

A paper read by PHILIP TURNER, M.S., before the Brixton Medical Society.

MR. CHAIRMAN AND GENTLEMEN,—When I was asked to read a paper before this society, I found the choice of a subject was a matter of no little difficulty. I felt that as I was to address a gathering of practical men, it would be preferable to select something of practical interest, and, if possible, bearing on treatment, rather than to choose some pathological subject, the interest of which would be chiefly theoretical. Bier's treatment seemed to be very suitable for our consideration, on the following grounds :—

1. It is a form of treatment which has been much discussed during the past year or two.

2. The cases in which this treatment is indicated are very numerous and varied and come very frequently before our notice.

3. The apparatus required is simple and inexpensive, and when once the principles which determine its use are grasped it is safe and easy of application.

4. Though much has been written about Bier's treatment, yet the instructions are often vague and meagre.

It soon became obvious, however, that some limitation of the subject was necessary. One has only to glance through the various British and foreign medical journals for the last few years to see the large number and variety of cases which have been treated by the method of hyperæmia.

In the course of a short lecture it is impossible to give a detailed account of the indications for and the results of the treatment in all diseases for which it has been used. At the same time, I felt it would limit the usefulness of the paper to thoroughly discuss Bier's treatment in one or two diseases only, and so I determined to treat the subject generally, mentioning especially conditions in which I have found it of use.

INDICATIONS FOR THE TREATMENT.

Let me first of all state that Bier's method should be regarded, at any rate in the great majority of cases, as an accessory and aid to, and not a substitute for, the ordinary means of surgical treatment. This must be carefully borne in mind with regard to the writings of certain enthusiasts on this subject. I have a pamphlet before me in which Bier's treatment is advocated for almost every surgical disease except new growths. Among other things it is recommended for acute otitis media, mastoid abscess, acute infective osteo-myelitis, tuberculous joints and gonorrhœa. Now I do not say that passive hyperæmia may not be of use in some or possibly all of these conditions, but in conjunction with, and not as a subsitute for, the usual forms of surgical treatment.

Bier's treatment consists essentially in the production of a passive hyperæmia in the diseased limb, organ, or tissue, as the case may be. The cases suitable for treatment are inflammatory diseases, acute or chronic, involving skin, soft tissues, or bone. The hyperæmia is produced in one of the three following ways :—

a. A constricting bandage applied sufficiently tightly to impede the venous return, but not to obstruct the arterial supply. This method is made use of when the diseased area is in one of the limbs.

b. A cupping glass is used in more local lesions, especially when situated on the trunk.

c. Hyperæmia may be produced by means of heat, the affected limb or joint being enclosed in a hot-air bath.

This method of treatment has been employed by Professor Bier, of Bonn, for some years, and is, in fact, in general use on the Continent, but it has only been used in England, to any extent, during the past two or three years. At the same time, it must be stated that the method is not new. Cupping glasses were used by our forefathers, though they did not speak of passive hyperæmia. In many old forms of treatment hyperæmia is produced, though it was not recognised as the essential part of the treatment. As examples of this one may mention the use of counter-irritants and poultices. Also, in the case of fractures of the lower limbs, the benefit derived if the patient is allowed to get about on crutches at an early date, with the limb encased in a plaster splint, has been long recognised. This is undoubtedly due, to a considerable extent, to the better blood supply at the site of injury caused by the dependent position. The hot-air treatment is not new. Osteo-arthritis and other conditions have for many years been treated in this way.

THEORY OF HYPERÆMIC TREATMENT.

One of the striking points about Bier's method is that, in many cases, it is so contrary to one's previous notions. Take, for example, a limb in a condition of acute cellulitis. We were formerly taught that the correct thing was to do everything we could to relieve the swelling of the inflamed part. According to Bier's method we are told to constrict the limb and increase the swelling. I approach the theoretical consideration of the subject with the greatest diffidence, for, as far as I am aware, no experimental work on the subject has been published.

One of the best clinical examples, however, of the influence of congestion in hindering the growth of bacteria is the relation between mitral stenosis and phthisis. It is by many maintained that a patient with mitral stenosis is very unlikely to become phthisical, and also that if a phthisical patient develops mitral stenosis that the tuberculous lesion advances less rapidly or even improves. It would appear that the production of an artificial hyperæmia has a very similar effect upon the septic micro-organisms. Those who use Bier's treatment must regard inflammation and the changes associated with it as the reaction of the tissues against injury, or, in other words, that these changes are essentially protective in character. The artificial hyperæmia must lead to an increase of blood in

the vessels and also to an increase of exudation into the tissues of the inflamed part. The opsonins in the inflamed area are thus increased, and phagocytosis and destruction of the organisms is aided.

METHODS.

We will now proceed to consider the various methods for the production of hyperæmia and the indications for the use of each.

A. HYPERÆMIA BY CONSTRICTION

This method is applicable in acute and chronic inflammatory lesions of the limbs, though similar conditions of the head have been treated by the application of a constricting band around the neck. The constriction, in the case of the limbs, is produced by the use of a thin elastic bandage about three inches wide. The ordinary Martin's bandage answers this purpose very well. It should be wound about six times round the limb, and secured by tying the tapes attached to the bandage.

The following rules should be carefully observed in treating a limb by this method :—

I. The application of the bandage should not be painful. On the contrary, there should, shortly after its application, be a distinct diminution of any pain the patient may have had in the affected part. It should be an absolute rule that if the application of the bandage causes pain or even serious discomfort, it should be readjusted or entirely removed.

II. The bandage should be applied entirely above the lesion, and in no case should it actually press on the affected part. For instance, in the treatment of a cellulitis of the hand, or hand and forearm, the bandage should be applied above the elbow. Should the cellulitis extend above the elbow, the band should be applied in the upper part of the arm or at the shoulder.

III. The pulse in the limb below the bandage must be unaltered. This means that the bandage must be applied in such a way that the arterial supply is unaffected, and the return of the venous blood is merely impeded and not stopped. The temperature of the limb below the bandage must, for the same reason, not be lowered.

IV. Swelling below the bandage will thus be produced, and the colour of the limb will be a bluish red.

V. No bandages or tight dressings must be applied around the affected area while the constricting bandage is applied. The inflamed part should be covered either with boracic lint or gamgee tissue loosely secured in position.

VI. The question now arises as regards the length of time the constricting bandage should be applied. This, of course, varies in the different diseases, and as to whether the affection is chronic or acute. Speaking generally, one may say that in acute inflammations the bandage should be applied for much longer periods than in chronic cases. In the former it may be left on for as much as twenty or even twenty-two hours in the twenty-four. In the latter, as a general rule, four hours' application once or twice in the day is sufficient. Of course, the bandage must be watched from time to time, and if it becomes loose must be readjusted.

Having given these rules, let me now proceed to give two warnings :—

1. In acute cases the treatment should always be carried out under careful supervision, especial care being taken to look for any signs of the formation of pus. In chronic cases this is not so necessary, and patients may often be quickly taught how to effectively apply the bandage themselves.

2. My second warning follows directly from the first. It is that on no account must pus be allowed to remain in the limb. Let me here insist on the fact that no absorption of pus takes place with Bier's treatment. Indeed, if suppuration has once occurred, it is probable that the application of the bandage increases the suppuration, as the opsonins and leucocytes are here given a task beyond their powers. Pus must, therefore, be carefully looked for, and if found must be treated by incisions. The incisions need be neither so free nor so numerous as when these are used alone, and large drains are unnecessary. Frequently all that is needed can be done under local anæsthesia. Still the fact that incisions to allow pus to escape are necessary cannot be too strongly insisted upon.

APPLICATIONS AND RESULTS.

I will now mention certain diseases in which treatment by the constricting band is indicated.

I. *Cellulitis.*—Let us first consider cellulitis and erysipelas, and let us assume that no signs of pus are present. Under these circumstances the constricting band should be applied at once and left on for six hours. It may then be removed for three hours and re-applied for twenty hours; next left off for four hours and again applied for twenty hours, and this process is repeated daily. Under these circumstances the pain is soon relieved and the temperature falls, though the removal of the bandage is not infrequently followed by a rise in the temperature, which is probably due to an increase in the amount of toxins passing in the blood to the body generally. In a few days the redness and swelling disappear, and the constriction may be gradually omitted. If, however, a brawny condition, with intense local œdema and tenderness, is present, suggesting the presence of pus, small incisions are made under general or local anæsthesia, and the bandage applied in the same way. Pus, blood and serum ooze freely from the incision and progress is then usually rapid. Needless to say, any fresh appearance of pus must be met by fresh incisions.

I will now give two examples of cases, in one of which incisions were necessary, while in the other no pus was present.

Anne N., æt. 46, had for some time a small chronic ulcer of the leg just above the ankle. Infection took place through this ulcer, and on her admission into Patience ward the leg was red and swollen, and œde-

matous from the ankle to the knee. The temperature was 102°. There was no brawny feeling to suggest the presence of pus, and she was treated from the first with the bandage around the thigh. Improvement occurred on the following day, and four days after admission the œdema and redness had entirely disappeared, with the exception of a slight redness in the region of the ulcer. No serum and no drugs were used in the treatment of this patient.

John N., æt. 73, a Crimean veteran, was admitted into Samaritan with cellulitis of the whole of the forearm which had followed a wound near the elbow, the result of a fall. The arm was very swollen, brawny and tender, and pus could be squeezed from the small infected wound. A general anæsthetic was administered, and it was found that over a great part of the forearm the skin was separated from the deep fascia by pus. Three incisions were made, and the bandage applied to the arm midway between the elbow and shoulder. Progress was rapid and uninterrupted, and in eight days the arm was normal in appearance and the small wounds were quite healthy. There was no stiffness or loss of power.

II. *Acute osteomyelitis and periostitis.*—Hyperæmia is certainly of great use in the treatment of these cases, but it should be regarded as an aid to, rather than a substitute for, the ordinary treatment by incision and drainage. It is claimed that if diagnosed early enough the constricting band will bring about resolution without any formation of pus and without any necrosis. Personally, I should think that it is necessary to incise down to the bone, to chisel open the medullary cavity, and when this has been done, to apply the band in the usual way for twenty hours in the twenty-four. If treated thus, the pus drains away easily, signs of swelling and inflammation disappear, and the condition of the patient shows marked improvement. The use of the constricting bandage is also strongly indicated in the later and more chronic state of the disease during the process of separation of the sequestra. The bandage should then be applied for four hours daily. The result is that the pus escapes freely, the sequestra tend to separate, and the whole natural process is hastened. The following is a striking example of the use of Bier's treatment in this disease:—Amy A., æt. 10, was in Patience last summer with acute infective periostitis and osteomyelitis of the lower end of the femur. Later on, this patient developed suppurative arthritis of the knee and ankle, with necrosis of the astragalus and lower end of the tibia. So serious was her condition that Sir Alfred Fripp, under whose care the patient then was, thought that an amputation through the hip would probably be necessary. At his suggestion, however, the constricting bandage was applied for four hours daily. Improvement was soon obvious, and eventually sequestra separated from the femur and tibia. She then went to a convalescent home, and when seen three months later the sinuses, with one exception, had closed, and though there is but slight movement in the affected joints, the patient has quite a useful leg.

III. *Ununited fracture.*—The usefulness of hyperæmia in treating ununited fractures has been long known, as is shown by the fact that this condition is so often treated, in the case of the tibia and fibula, by allowing the patient to get about on crutches with the leg supported in a plaster splint. These results would probably be improved if, in addition, the constricting band be applied above the fracture for four hours once or twice a day. Last year a patient was admitted into Luke with an ununited fracture of the tibia and fibula. Firm union occurred with the patient resting in bed and wearing ordinary back and side splints, the band being applied daily for four hours.

IV. *Arthritis.*—Bier's treatment by the constricting band has been recommended for various inflammatory conditions of joints. In has been recommended for gonorrhœal arthritis, but the results obtained appear to vary greatly. I personally have treated no cases of gonorrhœal arthritis in this way.

Tuberculous joints have also been treated by the application of the constricting band for four hours daily. Here again opinions as regards results differ very markedly. I have treated several cases of tuberculous knee in this way, but always in combination with the other forms of treatment, and my impression is that the improvement these cases have shown is due to splints, drugs, or general treatment, rather than to the hyperæmia.

Mr. Waterhouse, on the other hand, strongly recommends the treatment of tuberculous joints by Bier's constricting band combined with the injection into the joint of sterilised iodoform and glycerine emulsion. Mr. Waterhouse points out that it is difficult to say which of these two methods does the most good, but believes that both are of great service.

In cases of suppurative arthritis, Bier's treatment, following incisions to let out the pus, is said to cause a more rapid recovery, and the function of the joint is less likely to be damaged.

V. *As a prophylactic measure.* The constricting band may be used as a prophylactic measure in septic wounds, especially when deep and where tendons are divided. The band must in these cases be applied as for acute suppurations. Similar treatment may be adopted in cases of compound fracture, the bandage being applied as soon as the injured limb is fixed on the splint.

In addition to these conditions in the limbs, the constricting bandage has, as I have already pointed out, been used elsewhere.

A thin rubber band has been used to constrict the neck in certain inflammatory diseases of the head, for instance, erysipelas, parotitis and even middle-ear disease. The band should be applied so as not to inconvenience the patient when eating or sleeping. As I have not tried, and should not recommend, this treatment for the above diseases I will say no more about it.

A constricting band has, however, been used with success around the root of the scrotum in the treatment of certain inflammatory diseases of the testicle, both

acute and chronic. The best form of band to use is a piece of thin rubber tubing about three-quarters of an inch in diameter, similar to that which one uses for Paul's intestinal tubes. This may be wound three or four times round the root of the scrotum, and secured by small clips.

In acute cases of epididymo-orchitis the band must be applied at first four hours on and four hours off, gradually increasing the application until the bandage is left on for twenty hours out of the twenty-four.

For tuberculous testicle the bandage should be applied for four hours once a day. I have recently treated in Luke ward a case of double tuberculous epididymitis in this way. A large tuberculous abscess was present in the left epididymis, while a small one had discharged on the right side. Both were incised and thoroughly scraped, and the band afterwards applied daily. The wounds at present are quite healthy, though it is too early to speak of the ultimate result.

B. Hyperæmia Produced by Cupping Glasses.

These glasses, of very varied size and shape, are used essentially for small localised inflammatory lesions, and especially for inflammatory lesions of the trunk where the application of the band is impossible. The air is exhausted from the smaller glasses by a rubber ball, and from the larger glasses by means of a suction pump. As in the case of hyperæmia by the constricting band, the suction apparatus may be used in either acute or chronic inflammatory troubles.

The following rules should be observed in the treatment by these glasses :—

1. A glass of suitable size and shape should be selected. The edge of the glass should be thick and rounded, and when applied should be free from the diseased area. The edges of these glasses are shaped in various ways, and a glass should be selected which easily and naturally fits against the body wall over the diseased area. The edge of the glass should be lubricated with vaseline or glycerine in order to ensure that it fits tightly against the skin.
2. As in the case of the band, the treatment should cause the patient neither pain nor serious discomfort.
3. Asepsis should be carefully carried out. The glass cups should be boiled before using, and the rubber balls and tubes should be disinfected by immersion in carbolic lotion. The glass cups are shaped, as far as possible, to avoid pus getting into the rubber balls and tubes.
4. Exhaustion causes swelling and redness of the tissues enclosed. Begin by moderate exhaustion, and afterwards increase it as long as it causes no pain.
5. As regards the duration of the application, the cup should be applied for not more than five minutes; it should then be removed for three minutes, and again re-applied for five. Six or eight applications may be made at one sitting, so that the treatment lasts about thirty to forty-five minutes. In acute cases this may be done twice a day.
6. On no account must pus be allowed to remain in the tissues. If present, one or more small incisions should be made. No drain will be required. The cup will suck out the pus.

The hyperæmia produced by suction differs in some respects from that produced by the compression band; the former is at first arterial, though it is said after a time to become venous. As might be expected, there are certain indications for its use apart from the one already mentioned, *i.e.*, that for lesions on the trunk the band is impracticable. Let us now consider the special indications for the use of the band.

I. *For boils and carbuncles.*—In both these conditions the use of the suction glass is of the greatest value. Incision is frequently not necessary, especially if the treatment is commenced in the early stage. If suppuration occurs, or the central core presents, a small puncture will be necessary. Carbuncles react particularly well to this form of treatment. Owing to their size, it is usually necessary to select a large glass, and exhaustion is usually brought about by means of the suction syringe. The treatment should be carried out for half an hour once or twice a day. Small incisions are usually necessary, and then pus and masses of necrotic tissue are brought away by the action of the glass. Several carbuncles have been treated in this manner in Patience and Samaritan wards, and a large carbuncle will practically disappear in the course of a week or ten days. The amount of scarring is much less than that obtained after the ordinary methods of treatment. I have no hesitation in saying that this is a very marked advance on the old method of treatment by crucial incision and fomentations.

II. *For acne.*—This troublesome skin disease may be satisfactorily treated by suction. Specially small glasses are made, and the treatment should be carried out as for boils. A small puncture may be necessary.

III. *For inflamed glands and acute abscesses.*—When pus is present, a small incision is necessary. The pus is removed by suction, and rapid improvement results.

IV. *For whitlows.*—Treatment by suction is of the greatest value in these cases. It is best carried out by a bottle-shaped glass into which the finger is introduced, its base being secured by an air-tight rubber band. Air is exhausted, and the finger is seen to swell and become bluish red in colour, while the skin secretes sweat. In these cases it is of great importance to incise and allow the pus to escape. If this treatment is adopted in the earliest stage in subcutaneous or even thecal whitlows, complete recovery may result. In those cases where the phalanx is already necrosed, the same treatment may be carried out. The swelling goes down sometimes very remarkably, the inflamed tissues become firmer and healthier, and sequestra are loosened. In one case treated by this method, a sequestrum came away through one of the incisions.

V. *Mastitis.*—For the treatment of acute mastitis, a large bell-shaped glass, shaped to fit over the whole breast, is used. Suppuration must be carefully watched for and small incisions made into any brawny or fluctuating area. The glass is applied for five minutes at a time, with three minute intervals, the whole treatment taking about half an hour daily. No drains are used, and pus freely escapes through the small incisions. By this method the condition subsides much more rapidly than by the old method with large radial incisions. There is far less scarring and injury to the tissues of the breast.

VI. *For sinuses.*—The suction method is often very effective in the treatment of all varieties of sinuses:—

a. Tuberculous sinuses, such as those which sometimes persist after the incision and scraping of tuberculous glands, may be often made to close by this method. It will, of course, not be successful when one has a large tuberculous mass at the end of the sinus, but in those cases where a sinus persists with some induration and the presence of tuberculous granulation tissue, a cure may often be brought about. As the result of suction, some pus and blood come away each day, the granulation tissue gradually assumes a more healthy appearance, and the sinus eventually may close. In these cases, however, as in my experience with Bier's treatment generally is the case, tuberculous lesions are less satisfactory to treat than septic inflammatory lesions.

b. Septic sinuses, when chronic, may be treated by the application of suction in the way mentioned above for half an hour daily. I will give two examples of the treatment of septic sinuses by hyperæmia. Last December a man came to my out-patients' with a sinus at the angle of the jaw which had followed an operation for actinomycosis some six months previously. Examination revealed no bare bone, and the discharge contained nothing which suggested active actinomycosis. The cupping glass was applied daily, and in two weeks the sinus had completely and firmly closed. I have not seen him since, so presumably he has remained quite well.

The second case was that of a man who had for two years a sinus beneath the jaw which had followed on an alveolar abscess. The teeth had been extracted, and on examination with a probe no bare bone could be felt. An X-ray examination proved that there was no root embedded in the substance of the jaw. The use of the cupping glass daily led to the closure of the sinus in about two weeks.

Of course in the above cases, if there had been any diseased bone, I have no doubt that the treatment would not have been successful, but both these cases had been treated for a long time by ordinary dressings without result.

c. Post-operative sinuses.—In many cases after an operation it is necessary to leave an open wound, which has to be kept open and slowly closed by the formation of granulation tissue. In many of these cases the application of cupping glasses for half an hour daily brings the wound to a more healthy condition and promotes closing.

I have tried this method in the after-treatment of empyema, in certain cases with considerable benefit. The action of a cupping glass over an empyema wound is threefold: (*a*) It sucks out the pus, (*b*) it causes hyperæmia of the lining membrane of the cavity, and (*c*) it will tend to aid expansion of the lung, though I am not prepared to say whether this effect is very great.

One of the most striking cases I have treated in this way was a boy, Thomas B., æt. 4, under Dr. Hale White. A large empyema was drained on February 1st. He apparently did well for a few days, and then his temperature went up and it seemed as though some further operation would be necessary. On February 7th the cupping glass was applied and continued daily. The temperature came down to normal almost at once, and he has since made good progress, the empyema wound having now closed.

The sinuses resulting from operations for acute appendicitis and mastoid abscess may be similarly treated.

C.—Hyperæmia Produced by Heat.

As regards the last method of production of hyperæmia by means of hot air, I shall say only a few words. As has been previously stated, this method of treatment has been in use for many years. The hyperæmia thus produced differs from that produced by constriction and by cupping in that it is an actual active hyperæmia caused by dilatation of the arterioles. Hot-air treatment is usually applied to a limb or a joint, and the affected part is enclosed in a case in which the hot air circulates. Astonishingly high temperatures can be stood—even as much as 220° F., or more. The treatment is carried out daily for three-quarters of an hour. The disease most commonly treated by this method is osteo-arthritis, and it certainly causes a great diminution in the pain. It is found, however, that the improvement is usually only of a temporary nature, and when the treatment is omitted there is a very great tendency to relapse. Hot-air treatment is also used in certain conditions of ankylosis of joints and for the stiffness which results after a fracture in the neighbourhood of or actually involving a joint. It has also been used in the treatment of the stiffness and tenderness which persists after inflammation and suppuration in the tendon sheaths.

Periodicals Received.—The Hospital; The Clinical Journal; Calcutta Medical Journal; South African Medical Record; New York State Journal of Medicine; St. Mary's Hospital Gazette; Manchester Medical Students' Gazette.

Nasal Polypus.

CLINICAL LECTURE BY F. J. STEWARD, M.S.

GENTLEMEN,—The term "nasal polypus" is, of course, a generic one, and it might apply to various kinds of growth in the nose which are of a polypoid nature. But it has become usual in practice to apply the term "nasal polypus" to only one particular form of tumour, and that is the condition which I shall speak about to-day.

The ordinary nasal polypus is not a neoplasm. It is an inflammatory condition, and it consists practically of a mass of œdematous mucous membrane, containing inflammatory products. Formerly nasal polypi were spoken of as myxomata, but this is now known not to be correct. Looking at a section of nasal polypus it is found to consist largely of areolar tissue, containing much fluid, and here and there patches of cellular inflammatory infiltration. There may also be cysts, and sometimes such cysts form the larger part of the swelling. Occasionally also there is necrosis in the substance of the polypus, so that small caseating patches are seen. The surface of a polypus is formed by mucous membrane covered by a layer of ciliated epithelium, and containing many mucous glands. The size and shape of polypi vary much. They are most frequently flattened from side to side, and more or less pedunculated, and may be as small as a pea or as large as a hen's egg.

With regard to the site of origin of nasal polypi, most of them grow from the ethmoid bone, and particularly from the neighbourhood of the middle turbinal and middle meatus. They may grow from any part of the ethmoidal bone, however, and also from the walls of the accessory sinuses, but the ordinary nasal polypus does not grow from the nasal septum, nor from the inferior turbinate.

The commonest site of origin, when they are not very extensive, is from either the middle turbinate or the middle meatus. As the process extends, it tends to involve more of the ethmoid, and to push the ethmoidal cells on one side or cause the absorption of their walls, so that eventually there may be a condition in which the nose is packed with polypi, and there is very little of the original bony wall left, the growths presenting at both the anterior and posterior nares. In extreme cases absorption of the bone of the external nose may also be caused, so that the nose becomes much broadened out and quite soft. I remember a man, over 70 years of age, who had had polypi for forty years, and had always objected to anything being done for them. Eventually, however, he came up to Out-patient's, and he then had the condition I have just described; the bony parts of the external nose were absorbed, and his nose was spread over his face. Besides occupying the nasal fossa, nasal polypi may originate at the posterior part of the nose, and hang down into the naso-pharynx, and so give rise to one form of naso-pharyngeal tumour.

In a few cases, when the polypus is markedly pedunculated, the pedicle becomes gradually more and more lengthened and thinned out, and finally gives way, so that the patient may tell you he has blown polypi down his nose.

With regard to ætiology, there are certain definite points which have been made out in this respect. First of all, there is no doubt that polypi may arise in connection with certain forms of chronic catarrh. Many people have chronic nasal catarrh for which it is difficult to assign a cause, and a certain proportion of these people, after years of nasal catarrh, will develop nasal polypi. I have watched a number of cases for a considerable time, and in some I have been able to definitely date the commencement of the growth. In particular I remember an old Guy's man, who came to me for the first time three years ago. He had a watery nasal discharge every day, or some part of every day, and the discharge necessitated the use of two or three pocket handkerchiefs a day. There were no signs then of polypi. He went into practice, and some time afterwards came to see me again, and he then had a number of polypi, two or three on each side, and his symptoms had remained practically the same. Probably there is in such cases some chronic inflammatory bone disease which causes the catarrh, and eventually results in the formation of these masses of inflammatory or œdematous mucous membrane.

Again, the special form of catarrh known as hypertrophic rhinitis, which mostly affects the inferior turbinated bodies, may also affect the middle turbinated bodies, and the mucous membrane of the ethmoid, and so cause polypi. The commonest cause of nasal polypi, however, is ethmoiditis. This is nearly always an infective process, probably starting after some acute infectious disease; for instance, in children —in whom it is common—measles or scarlet fever may be the cause. In adults influenza is a frequent cause of ethmoiditis. The ethmoid cells are very thin, and as the bone is directly

covered with mucous membrane it must be infected by any disease which starts in the mucous membrane. In turn the bone disease sets up œdema of the mucous membrane and the formation of polypi.

Regarding the more clinical side of the subject, nasal polypi cause varying symptoms, which may, for practical purposes, be divided into two groups: (1) Those which do not arise directly from the polypus itself, and which may therefore be called indirect or reflex symptoms; (2) Direct symptoms caused by the mechanical effect of the presence of the polypi.

One of the commonest reflex symptoms is *pain*, which is described as of a congestive nature or a feeling of pressure, particularly over the bridge of the nose and in the region of the inner canthus, shooting up into the forehead. Frontal headaches, varying in degree, also are often caused by polypi. Many polypi in the early stages cause attacks of *sneezing*, often very violent and frequent. The region of the nose most likely to cause sneezing when irritated is the upper part of the septum. Probably, therefore, sneezing in connection with polypus is caused by the polypus reaching such a size that it reaches the septum, and is constantly irritating it. Frequently also there is a history of a chronic watery *discharge*, which may either be caused by the irritation due to the polypi, or by a catarrhal condition if previously present.

The next reflex symptom is *cough*, which is often due to nasal polypi. We had one case in Out-patients a few weeks ago; a woman who was sent up with a history of cough which had been going on for months, and for which no cause could be discovered in throat or chest. She had a single polypus in the right posterior naris, which, no doubt, caused the cough reflexly. I have seen a number of such cases, and in all of them removal of the polypi has cured the cough. So in any case of chronic cough which cannot be explained after examination of the throat or chest, it is important to carefully examine the nose.

Another reflex symptom in a few cases of nasal polypus is *asthma*. If a person comes of a family with an asthmatic history, or, in other words, is predisposed to be asthmatic, the development of nasal polypi may act as a direct excitant of asthma. I do not think one can go further than that. I do not think there is any proof that nasal polypi will directly cause asthma or hay fever in a healthy subject who has no particular tendency to these neuroses. If you remove the polypi in such cases, the asthma will, as a rule, improve to a considerable extent, and it may even be cured, but the result is more likely to be relief than cure.

The symptoms of the other group are obstructive. As polypi abound in the higher regions of the nose, usually in connection with the middle turbinate or middle meatus, it is clear that they will block the upper part of the nose first. The effect of that is not so much to interfere with respiration through the nose, but with the air reaching the upper region, namely, the superior meatus. Consequently the first obstructive symptom which is produced by nasal polypi is *obstructive anosmia*, which many of these patients suffer from. In nearly all cases of at all severe nasal polypi the patient has practically completely lost the sense of smell, *i.e.*, if the polypi are bilateral. It is often the first symptom to arise from polypi blocking the upper meatus. Later, as the polypi grow, the passage of air through the nose is interfered with, in consequence of which the patient takes to *mouth-breathing*, with all its attendant results, such as laryngitis, pharyngitis, tracheitis, even repeated bronchitis, and all these may therefore be due to polypi.

A short time ago I saw the brother of an old Guy's man, who came to see me on account of repeated sore throat, which he had not previously been liable to. He lived in a country town, so there seemed to be no reason why he should be constantly having sore thoat. He had some catarrhal pharyngitis, but nothing more. He also told me that he awoke every morning with a dry mouth, and he therefore breathed through his mouth to some extent. I found he had a few nasal polypi on each side, and the removal of these quite cured his mouth-breathing and his tendency to pharyngitis.

Another obstructive symptom is change of voice, which is caused by the growth of polypi. It becomes what is known as a nasal voice; not a good term to apply, but it is understood as a voice with a nasal twang.

As you may assume from this list, the patients may arrive complaining of a diversity of symptoms in different cases. In bad cases, however, yon may find all the symptoms I have named.

Now as to the diagnosis. In extreme cases you may recognise the presence of polypi by the presence of actual deformity of the external nose. In less severe cases polypi may be seen protruding at the anterior nares, and the patient may say that occasionally they project beyond the nose, and that he pushes them back from time to time. But the majority of cases are not so easily recognised as that. You must

examine the inside of the nasal fossa by anterior rhinoscopy.

There are various signs by which you can recognise a nasal polypus. First, by its *position*. By anterior rhinoscopy you see on the inner side the red septum. On the outer wall you see the red anterior extremity of the inferior turbinated body. The polypus, if it is not filling up the nose altogether, will be seen to be coming down from above the region of the inferior turbinate. If the polypus is larger still, it will hide more of the septum and more of the inferior turbinate body; and in extreme cases it will occupy the whole of the anterior naris, so that you can see nothing else but the polypus. With regard to *appearance*, a polypus is smooth, not lobulated at all, and is usually glistening, and of a grey, or bluish-grey colour. Over the surface you will see minute vessels ramifying. When the polypus is very big, there is more inflammatory exudation, because of the greater irritation, so that it becomes red, and is not so glistening as an ordinary polypus. Thirdly, notice the *consistence*. A polypus is quite soft. If you take a probe you can indent it easily. Fourthly, you will find it is freely *moveable*. It is usual to examine a polypus with a probe, because then you can form an idea of where it grows from. If, therefore, you find a soft, gelatinous, greyish smooth structure coming from the outer wall of the nose, and especially if the probe shows it is freely moveable, you know that you are dealing with a nasal polypus.

Occasionally polypi are very difficult to see; for instance, in hypertrophic rhinitis, where the inferior turbinate is very big, or where the septum is deflected. If there are symptoms present which may be due to polypi, it is very important that you should see the upper region of the nose, and be quite certain whether polypi are present or not. In those cases it is well to apply cocaine and adrenalin to the mucous membrane of the septum and inferior turbinate, and then in fifteen minutes examine again. The mucous membrane will then have shrunk owing to the ischæmia produced, so that you will get a better view. Posterior rhinoscopy should also be practised in these cases, because in a certain number you cannot recognise any polypus by anterior examination at all, but you may see it easily by posterior examination.

Having diagnosed nasal polypus, how will you treat it? From the point of view of treatment it is useful to divide up the cases into three groups:—

1. *Post-nasal.*—When the polypus hangs down into the post-nasal space, you cannot, as a rule, negotiate it without a general anæsthetic, because it is necessary to pass a finger into the post-nasal space. The loop of the snare is passed through the anterior naris, and then by means of a finger in the naso-pharynx the wire is manipulated round the polypus and gradually drawn tight, and the polypus cut off at the pedicle, and caught as it drops into the mouth.

2. The *second* group of cases consists of those in which the polypus is either single or there are only a few, suppuration being usually absent. Those cases you can deal with by the ordinary polypus snare, and without a general anæsthetic; in fact, it is easier to remove polypi without an anæsthetic than it is with, because the patient helps you somewhat, and it is easier with him in the upright position. You sit in a chair opposite the patient and use a reflector, with a good light and speculum, using the probe to ascertain the exact position of the polypus. Then take means to anæsthetise the polypi and surrounding mucous membrane. The polypi themselves are not very sensitive; the pain is chiefly due to touching the surrounding mucous membrane. The best way to anæsthetise the nose is to use a weak solution of cocaine, freshly made; 2½ to 3 per cent. is strong enough if it is fresh. You should paint it with a brush once or twice, getting the brush well up into the interstices between the polypi. The danger of a spray is that you may easily use enough cocaine to poison the patient, and, moreover, it may not reach the parts you specially want to get at. It is a good plan to prevent bleeding as much as you can. You can do that by applying adrenalin or hæmisine at the same time as the cocaine. The adrenalin takes time to produce its effect, so you must wait about a quarter of an hour after applying it before removing the polypi. As the polypus is growing from the region of the middle turbinate, you pass your wire loop in on the septal side. Having got the loop beyond the level of the polypus, turn your wrist, so that the loop becomes more and more horizontal and lies open beneath the polypus. Then pass the snare by a shaking movement upwards and outwards towards the base, and gradually pull the wire tight. When you have gripped the polypus, you can either draw the snare still tighter, when you will cut through the polypus just where you happened to have grasped it; or, what is a much better plan, give a steady pull until you find it giving, then give a slight jerk. You will in this way probably tear off the polypus at its attachment, instead of only removing a part of it.

3. There is a *third* class of case in which the polypi are multiple, and pus is almost always present, due to suppurative ethmoiditis, possibly associated with suppuration in other accessory sinuses. In those cases it is a waste of time to try to remove the polypi with the snare only, for owing to the suppurative ethmoiditis they quickly recur, unless the patient is prepared to let you do it very often, and you can keep him under observation for a long time. You may remove half a dozen from each nostril, and the week after you may find the nose as full as before. This is because this mucous membrane becomes so rapidly œdematous. It is better, therefore, to carry out a more radical operation, attempting to get rid not only of the polypi, but of the suppurative ethmoiditis which is the cause. The operation is carried out in the following manner:—Cocaine and adrenalin are applied carefully and thoroughly half an hour before the operation, so that the whole region is rendered as bloodless as possible. A general anæsthetic, preferably chloroform, is then given, the anæsthesia being light, because if you use cocaine it is not necessary to have the patient deeply under. The larger polypi are then removed with a snare, or with polypus forceps. Then there remains a soft mass, which consists of innumerable polypi, and in this mass there are spicules of bone, which are the partially absorbed walls of ethmoid cells, and can be distinctly felt by passing the finger into the nose. This mass must be got rid of by means of a Mayer's ring knife, a sharp curette which was originally suggested for the purpose of removing adenoids.

How shall you avoid danger? Chiefly by using the ring knife in certain directions only, taking care to avoid the cribriform plate of the ethmoid. All danger can be avoided by pressing the ring knife in an outward direction only, and scraping from behind forwards. In this way the middle and superior turbinates, and the whole of the remains of the lateral mass of the ethmoid, are scraped away. Occasionally the os planum of the ethmoid is damaged, and there results some effusion of blood into the orbit. Such an accident is, however, very rare, because the scraping is only continued so long as there is soft material to scrape away. The finger is passed into the anterior nares from time to time to ascertain progress and feel if more polypi and soft bone remain.

The scraping is carefully continued until the walls of the cavity left are quite firm and smooth both to the touch of the ring knife and the finger. Moreover, if the operation is practically bloodless, as is usually the case when this method is adopted, inspection with a good light will decide whether all polypi have been removed. There is usually little shock, and recovery is rapid. The result is generally very satisfactory, many cases being cured, but the patient must be kept under observation for some time in order that any further suppuration may be detected and dealt with, for if it is neglected a return of the polypi is inevitable.

Pass List.

April, 1909.

University of Cambridge.—Degree of Doctor in Medicine: B. H. Stewart, M.A., M.B., B.C., Jesus.

B. Glendining.

University of Durham.—Degree of Master in Surgery:

Second Conjoint Examination.—T. S. Allen, H. F. Barge, C. F. Constant, H. G. Crawford, W. E. S. Digby, E. R. Hart, W. S. Hyde, C. H. G. Pochin, R. C. Poyser, E. G. Reeve, W. E. Tanner, P. J. Watkin.

First Conjoint Examination. — Parts I. and II., Chemistry and Physics: J. W. Kemp and W. K. McKay. Part I., Chemistry: J. G. Richards. Part II., Physics: A. J. Drew, P. Savage. Part III., Biology: A. J. Drew, J. W. Kemp, W. K. McKay, P. Savage, C. R. Smith, A. H. Taymour. Part IV., Practical Pharmacy: A. E. P. Cheesman, J. S. Cocks, T. H. Edey, A. D. Vernon-Taylor, A. D. J. B. Williams, L. D. Wright.

Licence in Dental Surgery.—Preliminary Science Examination: M. Fred. Hopson, G. Matthews, H. B. Neely, W. S. Ollis, *H. J. Pegler, J. H. Rhodes, M Schneider, R. D. Tanner.

* Physics only.

Notices.

Revision Classes.

School Examination in Medicine.

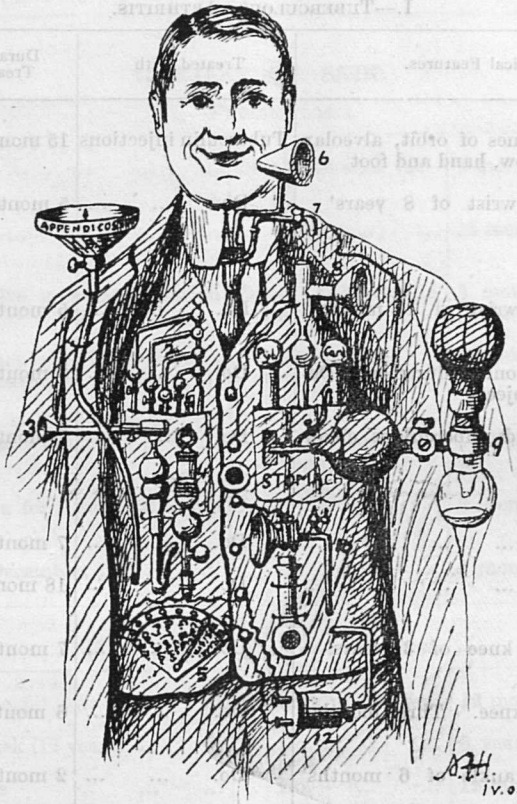
The School Examination in Medicine will be held on Monday, May 17th next, in the Medical School Office, at 10 a.m. Before admission to the Revision Classes in Medicine can be granted, it is necessary that candidates should have satisfied the Examiners at the School Examination.

The Revision Classes in Medicine will begin on Monday, May 24th next, and they will be held in Class Room 3 on Mondays, Tuesdays and Wednesdays, at 9.15 a.m.

22nd April, 1909. HERBERT FRENCH.

"The Future of Surgery is in Prophylaxis."

A Surgeon's Ideal of a Happy Man.



1. Appendicostomy for scavenging the cæcal cesspool, and for studying the B. C. C. in its native haunts.

2. Switches for short-circuiting various parts of the alimentary canal, when afflicted with indigestion :—

   i. Œsophago-rectostomy.
   ii. Gastro-cæcostomy (for "attacks" of duodenal ulcer).
   iii. Cholecyst-appendicostomy.
   iv. Recto-œsophagostomy.

3. Scope to catch gall-stones *en route* for the common-bile-duct.

4. Peep-hole through the foramen of Winslow to watch the fat necrose.

5. Switch-board for various scopes.

6. Gastroscope to see what the stomach looks like when it aches, and to tell the time from the hour-glass contraction. It can also be used for letting the gas escape.

7. Œsophageal tap to enable patient to have full diet when suffering from gastric ulcer, and to eat more after having eaten enough.

8. Scope to prevent eclipse of the solar plexus by the semilunar ganglion.

9. Gastric pumps for examining contents of cardiac and pyloric ends of stomach separately and removing unsuitable articles of diet.

10. Scope for sigmoidoscopy from above and to see through Houston's valve if the sentinel hæmorrhoid is doing his duty.

11. Blow-off cock.

12. Sigmoidal ejector.

Vaccines and the Opsonic Index.

BY A. NORMAN LEEMING, M.B., B.S.

The List of Cases.

DISEASES OF JOINTS AND BONES.

I.—TUBERCULOUS ARTHRITIS.

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
W. Y. 5. M.	Disease of bones of orbit, alveolar process, elbow, hand and foot	Tuberculin injections	15 months ...	Cured.
X. Y. 47. F.	Tuberculous wrist of 8 years' standing	Do.	5 months ...	Great improvement. Less pain, and periarticular swelling is less.
E. C. 11. F.	Tuberculous wrist of 10 months' duration	Do.	5 months ...	No pain now. The disease is subsiding.
J. L. 57. F.	Ditto, of 3 months' duration. Debilitated subject	Do.	3 months ...	No improvement.
I. Y. 30. F.	Old ankylosed tuberculous elbow with sinuses	Do.	7 months ...	Under treatment does well, but relapses when left without tuberculin.
D. E. 1. F.	Dactylitis	Do.	7 months ...	Improvement.
S. M. (Convent Sister)	Dactylitis	Do.	18 months ...	Improvement followed by relapse.
E. Y. 25. F.	Tuberculous knee of 3 years' standing	Do.	7 months ...	Steady improvement.
L. R. 8. M.	Tuberculous knee. Three months' history	Do.	6 months ...	Fair.
H. S. 10. M.	Tuberculous ankle of 6 months' duration	Do.	2 months ...	Lost sight of.
L. J. 7. F.	Tuberculous os calcis with sinus ...	Do.	3 months ...	Marked improvement
A. P. 32. M.	Psoas abscess operated on in 1906. Healed, then broken down again, forming sinus 1908	Do.	6 months ...	Discharge less, but sinus remains.
C. H. 10. M.	Spinal caries, girdle pains for 16 months	Do.	7 months ...	Improvement. Sent to seaside.

II.—GONORRHŒAL ARTHRITIS.

G. G. 30. M.	Multiple arthritis in spine and all big joints	Gonococcal vaccine (Trivalent)	5 weeks ...	Improvement, both local and general.
J. H. 28. M.	Wrist disease. Much effusion into joint and periarticular inflammation	Do.	4 months ...	Very satisfactory, cured with good joint.

III.—UNCLASSIFIED.

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
A. B. 30. M.	Septic amputation stump of finger. Sinus persisting 4 months	Staphylococcal vaccine (from the sinus)	1 month (4 injections)	Cure.

DISEASES OF SKIN.

I.—FURUNCULOSIS.

A. Q. 21. F.	Acne	Staphyloccocal vaccine	4 months ...	Great improvement.
A. B. 25. F.	Acne	Do.	15 months ...	Cured.
B. B. 22. M.	Acne. Twelve months' duration	Ditto, and ceridin pills	3 months (vaccine treatment)	Improvement.
Nurse M. F. ...	General furunculosis. Many months medical treatment for boils all over body	Staphylococcus aureus vaccine	6 weeks ...	Cured.
A. H. 29. M.	Acne indurata	Staphylococcus albus vaccine	14 months ...	Unsatisfactory.
C. W. 20. M.	Acne indurata for 8 months, severe	Staphylococcus vaccine	8 months ...	Improvement.
F. S. 20. M.	Boils since December, 1907 ...	Do.	3 months ...	Marked improvement

II.—TUBERCULOUS SKIN DISEASE.

M. M. 35. F.	Lupus of nose	Tuberculin injections	12 months ...	Cured.
L. D. 12. F.	Lupus of cheek (12 years)	Do.	3 years ...	Almost cured.
M. U. 40. F.	Lupus of face	Do.	12 months ...	Cured.
M. W. 35. F.	Lupus of nose (6 years)	Do.	1½ years ...	Slow improvement.
A. C. 30. M.	Lupus of face	Do.	1½ years ...	Remains inactive as long as tuberculin is continued.
L. M. 13. F.	Lupus of face and neck	Do.	1½ years ...	While being treated for face and neck a fresh patch developed on hard palate.
C. B. 26. F.	Lupus of face and neck for 15 years	Do.	3 years ...	Slight improvement.
J. B. 6. M.	Lupus of face and tuberculous cervical glands for 1½ years	Do.	1 year ...	Improvement.
M. H. 53. F.	Lupus of nose	Do.	2 years ...	Improvement at first, but relapsed later.
M. M. 34. F.	Tuberculous ulcer on back of leg for 30 years	Do.	3 years ...	Improvement.

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
W. S. 6. M.	Lupus of buttock and knee ...	Tuberculin injections	17 months ...	Cured.
D. B. 33. F.	Lupus of right forearm	Do.	12 months ...	Cured.
E. H. 14. M.	Lupus of front of leg	Do.	12 months ...	Improvement while under treatment; relapse after absence of 5 months.
A. S. 22. F.	Lupus of forearms	Do.	22 months ...	Improvement up to a degree, but no further
J. L. 15. M.	Lupus of elbow extensive and deep; impaired constitution.	Do.	1 year ...	Improvement for a time, then bad relapse
E. P. 28. F.	Tuberculous subcutaneous abscess of cheek	Do.	2 months ...	Cured.
G. D. 50. M.	Superficial septic tuberculous abscesses in ribs with discharging sinuses	Ditto, and staphylococcal vaccine	2 months ...	No improvement.
W. W. 14. M.	Lupus of hand	Tuberculin injections	9 months ...	Cured.
B. W. 26. F.	Lupus of face	Do.	2 years ...	Cured.
E. W. 18. F.	Lupus of face	Do.	2½ years ...	Great improvement. Still under treatment
W.	Lupus of face	Do.	22 months ...	Disease still active.
M. W. 35. F.	Lupus of nose and cheek (severe) ...	Do.	18 months ...	Slow improvement.
J. D. 12. F.	Lupus of face	Do.	12 months ...	Cured.

III.—Tuberculous Glands.

J. F. 25. M.	Very extensive glandular disease down to clavicle, both sides	Tuberculin injections	10 months ..	General condition greatly improved, a stone in weight gained; local condition better.
M. Y. 6. F.	Tuberculous cervical glands ...	Do.	4 months ...	Improvement.
A. D. 14. F.	Ditto, 10 months' history	Do.	3 months ...	—
J. K. 1 7/12 M.	Ditto, abscess opened	Do.	3 months ...	Glands increasing in size. Dactylitis commencing.
C. R. 7. F.	Ditto, operated upon and most glands removed. Patient under ideal conditions	Do.	8 months ...	Unsatisfactory.
D. S. 15. F.	Ditto, operation	Do.	13 months ...	Weight remains the same. Glands slightly less.
L. H. 15. F.	Ditto, short duration	Do.	4 months ...	No better.
M. W. 17. F.	Do.	Do.	2 months ...	No better.

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
M. F. 15. F.	Tuberculous mesenteric glands ...	Tuberculin injections	7 months ...	Gaining weight and general improvement.
W. T. 25. M.	Tuberculous cervical glands ...	Do.	16 months ...	Cured, but inoculations continued every 2 months.
A. D. 14. F.	Do.	Do.	3 months ...	Improvement.
E. G. 42. F.	Do.	Do.	8 months ...	Sent for operation.
A. A.	Do.	Do.	4 months ...	Slight improvement.
G. M. M. ...	Ditto, very severe case. Several operations	Do.	—	Progress very slow.

ACCESSORY AIR SINUS DISEASE

B. B. F. ..	Chronic ethmoidal disease	Vaccines of Friedlander's bacillus and staphylococcus	5 months ...	Patient says nasal discharge much the same.
D. H. 29. M.	Frontal sinus disease. Operation 2 years ago	Staphylococcus vaccine	16 months ...	Slow progress.
S. S. 22. F.	Chronic ethmoidal disease ...	Staphylococcus vaccine	7 months ...	Improvement.

THROAT DISEASES.

M. F. F. ...	Tuberculous laryngitis ... ... (Lupus of Larynx)	Tuberculin injections	18 months ...	Laryngoscope shows the ulceration to be healed.
B. L. F. ...	Tuberculous laryngitis. Cords ulcerated	Do.	2½ years ...	Very considerable improvement.
D. S. 22. F.	Tuberculous laryngitis. Cords ulcerated	Do.	10 months ...	Considerable improvement for 8 months, then severe relapse.
B. S. 21. F.	Lupus of larynx. Epiglottis destroyed; ulceration of soft palate and infiltration of cords	Do.	3 months ...	Improvement.

DISEASES OF THE EYE.

F. M. 20. F.	Tuberculous choroiditis	Tuberculin injections	—	Cured.
W. H. 11. F.	Tuberculous conjunctivitis	Do.	12 months ...	Cured.

PYORRHŒA.

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
F. H. 34. F.	— —	Streptococcal vaccine	3 months ...	Cured.
F. C. 41. M.	Pyorrhœa associated with very severe constitutional syphilis, rendering mercurial treatment impossible	—	—	—
R. L. 60. M.	— —	Streptococcal vaccine	4 months ...	Cured.
E. W. 39. F.	— —	Do.	4 months ...	Cured.
N. R. 25. F.	— —	M. catarrhalis ...	2½ months ...	Improvement.
W. S. 43. M.	— —	Do.	6 weeks ...	Improvement.
W. H. 30. M.	Pyorrhœa with rheumatoid arthritis	Do.	2 months ...	Improvement.
W. G. B. 27 M.	Extremely *acute* pyorrhœa ...	Streptococcus and catarrhalis vaccine	4 months ...	Most of teeth of lower jaw had to be removed, & his general condition improved.
D. G.	— —	Do.	3 months ...	Improvement followed by relapse.
M. M. 44. M.	— —	Do.	2 months ...	Improvement.
R. M. 38. M.	— —	Staphylococcal vaccine	3 months ...	Cured.

TUBERCULOUS PERITONITIS.

A. W. H. 31. M.	Tuberculous peritonitis with umbilical fistula and phthisis	Tuberculin injections	2 months ...	*No* improvement.
G. S. 21. M.	? Tuberculous enteritis. Intermittent attacks of diarrhœa over long period	Do.	6 months ...	Much the same.
J. W. 22. F.	Tuberculous fluid encysted in right iliac fossa and tuberculous Fallopian tube removed by operation	Do.	4 months ...	Marked improvement. Less pain.

HERPES GLOSSALIS.

W. H. S. 42. M.	Crops of ulcers about every week on sides and dorsum of tongue. Very painful 3 years under medical treatment	Streptococcal vaccine (organism isolated from the ulcer)	6 months ...	Some improvement at first; now in statu quo.

GENITO-URINARY DISEASE.

I.—Cystitis.

W. B. 34. M.	Frequent micturition of 6 weeks' duration	Tuberculin injections	4 months ...	—
G. W. 40. M.	— —	Ditto, and bacillus coli vaccine	2 years ...	Marked improvement. Increased weight.
W. E. 25. M.	— —	Tuberculin injections	9 months ...	—

Initials, Age, and Sex of Patient.	Clinical Features.	Treated with	Duration of Treatment.	Result.
A. W. 27. F.	1905. Tuberculous left kidney excised. 1908. Cystoscope revealed miliary tubercle of bladder	Tuberculin injections	4 months ...	Still much pyuria, but micturition less frequent.
A. D. 32. F.	Tuberculous kidney excised years ago. Tuberculous cystitis now	Do.	—	—
M. F. 36. F.	Old caries of spine with marked kyphosis. Excessive hæmaturia, no tubercle bacillus detected in urine	Do.	5 months ...	No change.
J. K. F. ...	Tubercle bacillus detected in urine	Do.	2 months ...	Micturition less frequent.
B. M. 28. F.	Old caries of spine. Cystitis symptoms 4 years; also vaginitis	Ditto, and bacillus coli vaccine for cystitis and staphylococcus aureus vaccine for vaginitis	3 months ...	Cystitis cured. Vaginitis being treated.
M. E. 68. F.	Symptoms of cystitis for 10 months. Cystoscopy, no ulcer	Injections of bacillus coli vaccine	6 months ...	Pain and urinary deposit the same.

II.—CHRONIC GLEET.

G. C. 50. ...	Duration 3 years	Staphylococcus albus vaccine from the discharge, and with a stock multivalent staph. vaccine	3 months ...	Improvement.
H. W. ...	Duration 18 months	Multivalent staphylococcus vaccine. Vaccine from his own lesion	2 months ...	Cured.

III.—TESTICULAR DISEASE.

E. D. 23. ...	Double tuberculous epididymitis. One testis removed, the other scraped, and sinus occasionally discharges	Tuberculin injections	18 months ...	Increase in weight and better general condition.
J. W. 9. ...	Tuberculous lump attached to testicle, part removed in August, 1908	Do.	2 months ...	The tumour is less.

IV.—UNCLASSIFIED.

L. M. 42. F.	Sinus from operation on perinephritic abscess in June, 1908	Injections of staphylococcal vaccine	5 months ...	The discharge from sinus continues.
A. A. 30. M.	Tuberculous ulcer on glans penis ...	Tuberculin injections	4 months (erratic attendance)	Much improvement.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council :—

Clinical Assistants in the Medical Wards.—Messrs. G. H. Hunt (Dr. Hale White); W. T. Clarke (Dr. Pitt); M. A. E. Duvivier (Sir Cooper Perry); A. L. Fitzmaurice (Dr. Shaw).

Ophthalmic Dressers.—C. H. Crump, H. Steinbach (Mr. Eason, May 1st); E. L. Elliott, V. T. P. Webster (Mr. Ormond); G. F. Haycraft, P. C. Field (Mr. Eason, June, 16th); W. H. Watson (Mr. Ormond).

Surgeons' Dressers.—Messrs. H. W. Doll, F. A. Dick, T. Lewis Jones, H. F. Stephens, A. L. Saul, R. Montgomery (Mr. Symonds); G. E. W. Lacey, G. B. Cockrem, H. F. Renton, J. Pryce Davies, W. H. Talfourd Jones, M. C. Thavara (Mr. Lane); T. D. M. Stout, G. Dunderdale, W. T. Chaning Pearce, E. A. Penny, G. Maxted, W. E. Fox (Mr. Dunn); J. W. Williams, J. H. Owen, M. M. Munden, C. E. Reckitt, A. D. Vazquez, T. T. O'Callaghan (Sir Alfred Fripp).

Obstetric Dressers.—May–June.—R. C. H. Francis, F. S. D. Berry (Mr. Targett); C. C. Tudge, G. H. Peall (Mr. G. Bellingham Smith).

Externs.—W. E. Williams, N. L. M. Reader (May); B. McDermott, B. T. Verver (July).

Civil.

BROCKWELL, J. B. C., M.R.C.S. Eng., L.R.C.P., has been appointed Medical Officer of Health, Walton-on-the-Naze Urban District.

RING, C. A. E., L.R.C.P. and S. Edin., L.F.P.S. Glas., has been appointed District Medical Officer of the Rugby Union.

THOMAS, FRANK LESLIE, M.B., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Ophthalmic Surgeon to the North Devon Infirmary, Barnstaple.

Naval.

Fleet-Surgeon P. M. MAY, R.N., has been appointed to the *Vengeance*, and to the *Trafalgar* on its becoming the parent ship. Staff-Surgeon M. P. JONES, R.N., has been appointed to the *President*, additional, for three months' course at West London Hospital; Staff-Surgeon A. J. WERNET, M.B., R.N., has been appointed to the *Iphigenia*, and Surgeon G. L. BUCKERIDGE, R.N., to the *Astrea*.

University of London.

Professor E. H. STARLING, M.D., F.R.S., has been re-appointed the Representative of the Faculty of Medicine on the Senate.

Change of Address.

Alfred L. Galabin, M.D. Lond., F.R.C.P. Lond., from 49, Wimpole Street, London, W., to Tapley, Bishopsteignton, Teignmouth.

John A. Glover, M.B. Lond., from West Malling, Kent, to Aspendell, Burgess Hill, Sussex.

Frank J. Nicholls, M.B., B.C. Camb., from Ellerslie, Eltham, Kent, to 13, Cavendish Place, Eastbourne.

(*The Editor will be very glad to receive a postcard with notes of any change of address.*)

BOOKS RECEIVED. — Fowler's Infant Feeding; Starling's The Fluids of the Body; Richet's The Pros and Cons of Vivisection; Medical Annual for 1909; Treves and Hutchinson's Operative Surgery, vol. i.; Dowsett's Dental Surgery Notes; Berkeley's Handbook for Midwives and Nurses; No. 5, vol. ii.; Proceedings of Royal Society of Medicine; Hudson's Aids to Medicine; Childe's Operative Nursing and Technique; Binnie's Operative Surgery, vol. i.; Hay's Graphic Methods in Heart Disease; Still's Common Disorders and Diseases of Childhood; Whitelocke's Sprains and Allied Injuries of Joints.

Births.

DAVIDSON.—On April 2nd, at Baron's Court Road, W., the wife of George Gillies Davidson, M.D., of a son.

HODGSON.—On 28th April, at The Crescent, Salford, the wife of Stanley Hodgson, M.D. Lond., etc., of a son.

NICHOLLS. — On April 9th, at 62, Queen's Gardens, Hyde Park, W., the residence of her father-in-law, the wife of Frank J. Nicholls, M.B., B.C., of 13, Cavendish Place, Eastbourne, of a son.

SAMS.—On April 13th, at Amatola, High Street, Bognor, the wife of V. Stevenson Sams, L.D.S., of a daughter.

STEINHAEUSER.— On April 13th, at St. Andrew's Place, Lewes, the wife of John R. Steinhaeuser, M.D. Lond., of a son.

Marriage.

IREDELL—FARNALL.—On April 14th, at the Church of the Annunciation, Bryanston Street, W., by the Rev. H. S. Iredell (uncle of the bridegroom), assisted by the Rev. W. H. Ward, Charles Edward Iredell, M.D., M.R.C.P. Lond., eldest son of the late Col. J. S. Iredell, Bombay Staff Corps, to Isabel Hilda, younger daughter of the late Harry Warner Farnall, of New Zealand, and of Mrs. Farnall, Auckland, New Zealand.

Death.

SNELL.—On April 17th, at Moor Lodge, Sheffield, Simeon Snell, F.R.C.S. Edin., D.Sc. Sheffield, aged 57.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

WE are requested to announce that the Fourteenth Annual General Meeting of the Guy's Hospital Ladies' Association will be held in the Governors' Court Room on Tuesday next, May 18th, at 4 p.m., on which occasion H.R.H. Princess Christian of Schleswig-Holstein has graciously consented to preside.

THE Annual Meeting of the British Medical Association is to be held this year in Belfast at the end of July. Among the members of our Staff who are associated with the Congress in an official capacity, Dr. Beddard is a Vice-President of the Anatomy and Physiology Section, and Dr. Shaw a Vice-President of the Section for Medicine; Mr. H. T. Hicks and Dr. Cameron are Honorary Secretaries of the Obstetrical and Therapeutical Sections respectively.

THE Reports of the Inspectors on the work done by investigators who are in receipt of grants from the Science Committee of the British Medical Association give some account of research work which is being done in our laboratories. Dr. Hertz and his co-workers have been investigating the motor and sensory functions of the human intestines in health and disease, and have also studied the action of saline purgatives, which their results, so far as they go, seem to show is not simply a physical one, but consists of a stimulus to the intestines after absorption of the salt into the blood. Dr. French and Dr. Pembrey are working upon the nature of the extreme cyanosis in certain varieties of congenital heart disease. Dr. Boycott and Dr. C. G. Douglas have been examining the reliability of the Haldane and Lorrain-Smith method for the estimation of the total hæmoglobin and the blood volume, and they are also studying the regeneration of blood after depletion, and the effects of transfusion. Mr. P. P. Laidlaw has been re-examining the accepted view, based on Hüfner's researches, with regard to the amount of oxygen present in methæmoglobin.

UP to the present, although the walls of the Club Smoke-room have been decorated with photographs of many old teams, there has been no method or order in their arrangement. This is now being remedied by the committee of the Students' Club. Several large oak frames, provided with glass doors and locks, giving room for the display of some fifty photographs, have been placed on the walls. The groups are

being arranged in chronological order, so that a visitor who is interested in any particular year can easily discover the groups belonging to that year. We hope that, as far as possible, the names will be written below the groups, as that will add immensely to their interest and value.

RUMOUR has it that the good work done by the Disguysed Minstrels of ten years ago is going to stimulate some of the present men to embark upon an enterprise of some similar kind. Very few facts are to hand as yet, but a strong committee has been formed, and if it be considered possible, the initial venture of the new philanthropists will be a concert, which will be followed at no distant date by a performance of one of the Gilbert and Sullivan operas in the Physiological Theatre, prior to its presentation at various suburban places of entertainment. When we consider how large a sum was raised by the Minstrels, it is odd that the idea of a similar series of entertainments has not occurred to some of us before, and it is very pleasing to know that at all events efforts will be made in this direction. We think there was seldom a time more ripe for such an attempt, or a year when the hospital contained more dramatic and musical talent. We shall be very glad to hear more of the proposal, and we wish it, and anticipate for it, the complete success that such generous enterprises deserve. We shall hope to be able to say more in our next issue.

IT is not often that these columns are occupied by a discussion on "Modes for Men," but we have a word to say on the subject of white coats. "The doctor in the white coat" is a familiar feature at both the Front and Back Surgeries, but why is he not a more familiar feature? Why should the white coat remain a monopoly of the Out-patient Officer? Customs —even useless and objectionable customs—die so hard among us, that when, as happened some little time ago, a band of Clinicals is bold enough to adopt the white coat for ward wear, the spotless garment is held up to derision, and its owner intentionally confounded with the barber. A few—a registrar here, an assistant surgeon there, and occasionally a house-physician or surgeon—have adopted in the wards a custom which is universal among our dental students, in the fever hospitals, and among the staff of Continental hospitals, but we should like to see everyone here—qualified or unqualified—who frequents the wards or the surgeries clothed in this obviously clean and wholesome manner. The fancy waistcoat, shirt-sleeves and Norfolk jacket of the average dresser contrast as unfavourably with the neat and clean appearance of our nurses as the sloppy costume of the nurses in Continental hospitals does with the clean white coats of the medical officers there. We commend these suggestions to the notice of the sceptic and the aseptic, and shall look forward eagerly to the cult of the white coat.

AMONG the specimens in our museum which excite the curiosity of the idle rather than the pathological fervour of the scientific, is No. 595, the stomach of the "knife-swallower." The account in the catalogue of this bizarre specimen is very brief, but *The Times* in its daily extract from its files of a century ago, recently quoted a fuller account of the case which appeared in the issue of April 20th, 1809. This may be of interest to our readers:—

"A most singular case having lately occurred in Guy's Hospital, of a man who lived several years after swallowing a number of knives, and imperfect and erroneous accounts of it having found their way into the public papers, we have succeeded in obtaining the following short but authentic information respecting it:

"John or William Cumming, an American seaman, while in France in 1799, seeing some itinerant jugglers pretend to swallow knives, was induced, in a moment of intoxication, to do the same in reality, and actually swallowed *four* clasp knives, such as sailors commonly use; all of which he got rid of in a few days, without much inconvenience. Six years afterwards he performed another feat of the kind at Boston, by swallowing *fourteen* of different sizes; by these, however, he was much disordered, but recovered in the Infirmary at Charleston, near Boston, where the knives are preserved. Being captured on board an American ship, by his Majesty's frigate *Isis*, in the latter end of 1805, he entered the British service; and having boasted of his former exploits, he was unfortunately prevailed on to gratify idle curiosity, by swallowing *seventeen* on two successive days. He was immediately seized with violent pains, incessant retching, and other alarming symptoms, requiring the

aid of the surgeon, under whose care he remained for eighteen months from that time, when he was discharged as unserviceable. He was twice in Guy's Hospital, under Dr. Babington, in 1807; and was again admitted in 1808, by Dr. Curry, under whose care he continued for the last seven months of his life; the whole of that time being passed in almost constant pain, and progressive wasting, until the end of March, 1809, when he died. On examining the body after death, *fourteen* knife-blades, and a number of back-springs, were found in his stomach; all of them much corroded, and some nearly dissolved. A brass button, and part of the lining of a silver knife, were scarcely affected; but the horn handles and iron linings of the other knives were either dissolved, or had been passed downwards. The immediate cause of his death was the back-spring of a large clasp knife, which had penetrated through the intestines into the cavity of the belly. Two other back-springs had got down still lower, and were fixed across the gut, so as to be felt by the finger. Though the blades and back-springs found in the stomach were extremely ragged and sharp, yet this organ was not penetrated by them in any part; and what is still more surprising, he could bear considerable pressure there, and at times took food with appetite. Cumming was remembered to have been in Charleston Hospital in 1805, by a gentleman from Boston, now in London; and if any doubt could remain after the inspection of the body, his exploit on board the *Isis* at Portsmouth has been confirmed in the fullest manner by Captain Ommany, the Commander, and Dr. Lara, of Portsea, who was surgeon of that ship. The knives as taken out of the stomach, with the stomach itself, are preserved at Guy's Hospital; and it is understood that Dr. Curry is drawing up a complete history of the whole case, to be laid before the public either in the Philosophical Transactions, or some other periodical work. Many of the knives he swallowed were *four* inches long, and one inch and a quarter across the widest part of the blade and handle."

The "complete history" referred to appeared in the *Medico-Chirurgical Transactions*, vol. xii., p. 52.

THE mention of the knife swallower's stomach reminds us of a *desideratum* which we have long felt the want of in the Gordon Museum. This is a short catalogue, or hand list, of what may be called the popular exhibits in the collection, such as the stomach under discussion and the hydrocephalic skull. Such a list would be of great service in showing visitors, who have not been brought up on pathology, round the museum. Would there be time for the compilation of this *brochure* before Prize Day, we wonder?

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Bow Leg Splints.

DEAR SIR,—The old way of treating bow legs is still in vogue, and as I think it time it gave place to a more rational method, I venture to draw attention to my experiences in practice of the proper way. A boy, a relation of mine, had bow legs, and therefore I went to several hospitals and took him to an eminent "specialist" to find out the latest treatment, and I found the same antiquity everywhere, the same old tale: "Put on long splints and keep him off his feet."

This treatment is entirely wrong in principle, and does more harm than good: the disadvantages are many, the most important being that the beneficial effects of muscular action are done away with, the circulation in the limbs is interfered with, the splints are easily displaced, and have to be put on afresh very often, which takes time, the child is utterly miserable, and the want of exercise is deleterious to its health, the bandages get dirty, and look horrible; last, but not least, the treatment is not only useless but absolutely absurd.

The proper splints for bow legs are made of poroplastic felt, are placed on the inside of the leg, extending from a little above the knee to the ground; they are fastened with three straps, one immediately below the knee, and one round the ankle, over boots if worn; these two straps are worn loose, the third strap goes round the calf and has a square leather pad on its outer side; this strap is tightened every day until the limb is straight.

There is no need whatever to have a splint for the thigh, the femur is rarely affected, and the powerful muscles *with exercise* will cure any deformity.

The advantages of these splints are as follows:—Firstly, they *absolutely cure the bow legs;* I have used them in numerous cases *for years* and can guarantee this; they allow the child to run about and develop its muscles, which tend to draw the bones into a normal shape; they are easier to put on than a pair of boots, and therefore can be removed when the child lies down, or for sea bathing or massage; they can be kept clean, covered with brown leather they look like leggings; the children like them, the older ones put them on themselves, the younger won't get up without them; nearly all my patients—or rather their parents—have told me this. They are not new to the profession, but they have been overlooked; I think nobody appears to have given them a fair trial before. They are made by all instrument makers; Messrs. Down Bros. have fitted a number for me. The cost is about 15/-, and two pairs will last long enough to effect a cure. My cases wear them three years, and I always let the instrument maker fit them on.—I am, etc.,

ARTHUR TODD-WHITE.

Wentworth Lodge,
Leytonstone.

Guy's Hospital Rifle Association.

DEAR SIR,—May I make it known through your columns that at present we stand a very poor chance of even making an attempt to regain the Inter-Hospital Shooting Cup? There are only three of last year's team available, and unless men who can shoot make the necessary effort and come down on the day of the next shoot, we shall probably be unable to raise a team. It is believed that expense keeps most men away, as unless they are in the team they have to pay for their own ammunition. This year, however, owing to the generosity of a well-known member of the Staff, it will be arranged that on the first day all ammunition will be half-price, and that on other days any man making a bigger score than that of a member of the team will have his money refunded. Railway vouchers for cheap fares can be obtained at the desk in the Dining Room. It is hoped that more men will turn up at the first shoot of the season than have signed their names on the list in the Smoking Room. Hoping you will find room to insert this.—I remain, Yours, etc.,

G. A. BLAKE, Hon. Sec. Rifle Assn.

Guy's Hospital Musical Society.

THE choral and orchestral sections joined forces in providing the last concert of the season, which was held in the Court Room on Tuesday last, May 11th, before a very good audience. It was an association rather than a collaboration of the two sections, even to the performance of "God Save the King," with which the choral section opened the concert, and which, as usual, we should have preferred to hear at the end, and with an orchestral accompaniment. Four part-songs were next sung by the chorus—"The Cruiskeen Lawn" and "The Bells of St. Michael's" (Stewart), "Ave Maria" (Smart), and "At her fair hands" (Elliott). The singing of these was on the whole good, and the contraltos especially maintained a good tone throughout; the tenors, however, were at times noticeably weak and uncertain. The male voices alone were heard in "Lovely Night" (Chwatal), and "Student's Parting Song" (Mendelssohn), and the contraltos and sopranos sang a duet and a trio—both of a devotional character—"Doubt not thy Father's Care" (Elgar), and "Be Strong to Hope" (Hecht).

It is a pity that the society could not have chosen as the *pièce de resistance* a work of greater musical interest than "Lord Ullin's Daughter." Its subject-matter is dull and uninteresting, and in spite of an attempt at some dramatic fire, the music is ineffective. The chorus probably got out of the work nearly all there is to get. The same remark may be made with even greater truth in the case of the choral ballad, "The Miller's Wooing" (Faning), where the sentiments and their musical illustration are equally obvious.

Besides the choral numbers there were several solos in the first part. Nurse Kenny sang two songs by Noel Johnson—"The Rose" and "The River and the Sea." The spirit of the latter would have been better realised had the song been sung more quickly. Nurse Lewis was obviously suffering somewhat from nervousness in her performance of "Sing, Sweet Bird" (Arditi), an exacting song at the best of times, but she did herself more justice later in the charming duet, "O tell me, Gentle Stranger" (Parry), with Mr. L. C. D. Irvine. This item was so much appreciated that the audience demanded an encore, and were rewarded by the "Keys of Heaven" duet, which we had come to regard as a Christmas feature at the hospital. Mr. Irvine also sang the Prologue from "Pagliacci" (Leoncavallo) in excellent style.

Before turning from the Choral section, we should add that Mr. Henry Taylor conducted this half of the programme, and that Sister Ethel filled the arduous post of accompanist, and as Secretary of the Nurses' Choral Society has devoted much time and trouble to the good of the society as a whole. The society also owes much to its general secretary, Mr. Douglas Mitchell, who probably finds his post no sinecure.

Part II. was provided by the Orchestral Section, under the able conductorship of Mr. H. L. Eason, who had made an excellent choice of music. The Bach Aria in E Major, for instance, is a beautiful work too seldom heard; two gavottes from the suite in D Major by the same composer provided a fitting contrast to it. These, and afterwards "Allegro from the Military Symphony" (Haydn), and the Overture "Belmont and Constance" (Mozart), were well played by the orchestra. The feature of the evening was Mr. Emil Krall's fine performance of Max Bruch's Adagio, "Kol Nidrei," for the solo violincello, which was accompanied by the orchestra with a smooth and even tone throughout, even in the middle section with its difficult cross rhythms. Mr. Krall displayed great delicacy of touch and tone, particularly in the *pianissimo* passage towards the end where the subject returns. His mastery of tone colour was also shown in the three other solos—Aria (Tartini), Minuet and Trio (Becker), where the purity of the harmonics was a pleasure to hear, and Scherzo (Van Goens), which was given as an encore. These were accompanied by Nurse Rees, and the orchestra is singularly fortunate in having found an accompanist of such musical experience and artistic perception. This was evidenced both in her sure and reliable playing with the orchestra, which did much to keep them together, and in her sympathetic accompaniment of the solo instrument.

The concert closed to the frankly seductive, if too familiar, strains of the Intermezzo and Bacarolle from "Les Contes d'Hoffmann," which was played with evident enjoyment.

We hope that the society may next season be in a position to give an orchestral concert, with some chamber music.

Guy's Hospital Past and Present Nurses' League.

The First Annual Dinner of the Guy's Hospital Past and Present Nurses' League was held at the Nurses' Home on Friday, April 30th, at 7 p.m. The dinner was served in the Nurses' dining hall, the tables being very prettily decorated with daffodils. Between fifty and sixty Past Members were present, among them being: Miss C. Britton, Matron of the Cottage Hospital, Lutterworth; Miss M. Bryan, Matron of the General Hospital, Northampton; Miss Fox, Matron of the Tottenham Hospital; Miss Finnemore, Lady Superintendent Nursing Home at Croydon; Miss Hall, Matron of the Seamen's Hospital, Greenwich; Miss Herrmann, Lady Superintendent Nursing Home, Weymouth Street; Miss Hodges, Matron of the Royal Infirmary, Bradford; Miss Hoadley, Matron of the Royal Homœopathic Hospital, Bloomsbury, W.C.; Miss Hurlbatt, Lady Superintendent Nurses' Home, Bath; Miss Hyland, Matron of the Devonshire Hospital, Buxton; Miss Mansell, Matron of the Cottage Hospital, Bideford; Miss E. Newton, Lady Superintendent of the Nurses' Home, Ipswich; Miss Oyler, Matron of the Gloucester Infirmary; Miss Oxford, late Lady Superintendent of the Guy's Trained Nurses' Institution; Miss Du Sautoy, County Superintendent Q.V.J.I. for Somerset; and Miss A. P. Vance, Matron of the Cottage Hospital, Ealing.

At 7.30 the party adjourned to the tea room, where they were joined by a great many other members who were unable to be present at the dinner. Tea and coffee were served, and for half an hour many members, who had not met since they left the Hospital, enjoyed a chat together.

At 8 o'clock everyone assembled in the Nurses' Recreation Room, where the Annual General Meeting was held, Miss Enid Newton being asked to take the chair. Miss Newton, in opening the meeting, said she did not know until the night before that she was to have the honour of occupying the chair that evening. She was in a great panic, as she had never done such a thing before. She looked up a little book entitled, "Helps on all occasions," and turned up "Duties of a Chairman at a Public Meeting." One of the first things she found was "that the Chairman should first test the temper of the meeting." Well, she thought the temper of the meeting here to-night was good, for they had just had a very good dinner. (Laughter.) After running through several other amusing rules, she said she was ever grateful to the Matron for inaugurating the Nurses' League. While we were here at the Hospital we did not realize how dear it was to us; it was only when we were far away from home that the words of the old song, "Home, sweet Home," brought a lump into our throats; and so it was when we were far away from Guy's, and we heard of anyone who had been at the Hospital, we were eager to hear every little bit of news they could tell us of the dear old place. (Applause.) She next went on to say, "There is something else that appeals to me about the League, and that is its extreme cheapness in belonging to it. For half-a-crown, amongst other things, I have a copy of the Nursing Guide and Register sent to me whenever it is published, and whenever I have a few minutes to spare I take up that little book and find out what has become of all my contemporaries; some, I find, have married, and others, like myself, are still at work in different parts of the world, and then I can turn to another part of the book and find out 'How to make beef tea.' (Much laughter.) Then again, to-night, for the small sum of one shilling, I have been able to have a good dinner (laughter), and when I get into any trouble I simply write to Matron, and there comes back by return of post the correct answer to my difficulty." (Applause.)

After the minutes of the last meeting had been read, confirmed, and signed, the Matron, as Hon. Secretary of the League, gave a very satisfactory report of the year's work.

Between sixty and seventy new members had been added to the League. The Nurses and Sisters had spent 230 week ends, days and nights off at the Cottage at Honor Oak Park, and 1,187 short visits for tea, etc., had been paid.

Library books had been taken out of the Nurses' Library 3,153 times, and 110 new books had been added during the year.

The Musical Society, with which is incorporated the Nurses' Choral Society, gave a very successful concert in December last, and were giving another concert next month.

The Swimming Club had held competitions. Tennis was played at the Cottage during the season, and a new club—the Hockey Club—had been most successfully started during the winter. The bicycles, too, had been put into good order for members' use.

The Debating Society has held four very successful debates during the year, and the Fifth Annual Exhibition of the Nurses' Photographic Society was much more satisfactory than last year, the work being of a much higher standard, and great improvement had been made in every way, the portfolio which had been circulating among the members being found a great help.

On the Matron resuming her seat, she was presented with a bouquet of pink and scarlet carnations by Sister Theresa, the Home Sister, on behalf of the Present Members of the League now working in the hospital.

The result of the ballot for the election of Members of Council for the ensuing year was next announced, after which the Matron proposed the re-election of the Associate Members of Council: Lady Bective, Lady Fripp, Lady Perry, Mrs. Hankey, Mrs. Arbuthnot Lane, Mrs. Trevelyan Martin, Mrs. Charters Symonds, Mrs. Frederick Taylor, and Mrs. Hale White. These ladies had done a great deal for us, by working for us outside the hospital and by attending the meetings of the Council. The proposition was seconded by Sister Ethel, and carried unanimously.

A vote of thanks was also proposed to Mrs. Cosmo Bonsor, the President of the League, by the Matron, and was carried unanimously.

The Matron next proposed that a very hearty vote of thanks be accorded to Mrs. Fagge, the Hon. Treasurer. Mrs. Fagge had been indefatigable in her efforts to get new Hon. Members of the League, and she was glad to say that the finances were in a much more satisfactory condition. This was seconded by Miss Oxford, and carried unanimously.

Miss Hodges, in proposing that a very hearty vote of thanks should be accorded to the Matron for her kindness to all the members of the League, said she had never been able to be present at one of these evenings before, and she could now understand what a very great pleasure it was to them all. The dinner, too, was a very happy idea, and she was sure everyone had enjoyed it. Miss Finnemore seconded the vote of thanks, which was carried amid much applause.

The Matron, in reply, thanked everyone very much for the kind way in which they had received the vote of thanks, and said how delighted she was to see so many members present that evening.

Votes of thanks were also accorded to the retiring Members of the Council, on the proposition of Miss Du Sautoy; to Miss Smith, on the proposition of Miss Finnemore, seconded by Miss Hoadley; and to Miss Newton for so kindly taking the chair that evening, on the proposition of Sister Addison.

After the evening some lantern slides of interest to the members were shown on the screen, the most popular one being a photograph of the President of the Nurses' Photographic Society, which was greeted again and again with rounds of applause. Some prize slides, lent by the Royal Photographic Society, which were next shown, brought a very pleasant evening to a close.

The meeting was the most successful of the League Meetings that have been held, the rooms being crowded with past and present members. Many of those present had not been able to attend any of the previous meetings, and one heard on all sides, how much everyone had enjoyed renewing old friendships.

GUY'S HOSPITAL NURSES' PHOTOGRAPHIC SOCIETY.

The Fifth Annual Exhibition of the Guy's Hospital Nurses' Photographic Society was opened in the Nurses' Home on Friday afternoon, April 30th. Mr. F. T. Hollyer, who has just been appointed one of the Members of the Selecting Committee of the Royal Photographic Society, again kindly consented to act as judge.

The entries, numbering 180, were hung on screens to the best advantage by Sister Mabel, Sister Eleanor, Sister Rebecca and Nurse Zagallo; the screens, which were covered with suitable material, being artistically draped with art muslin by Sister Millicent and Sister Ellen.

The exhibits were divided into four classes, and the judge's awards were as follows:—

CLASS A. *Landscape, Seascape and River Scenery.*

1st Prize. "A Country Byway." Miss H. Smith.
2nd Prize. "Sea Foam." Miss H. Grahame.
3rd Prize. "A quartette of pictures." Lady Perry.

Others deserving of mention in this class were:—

"Avenue at Broadfield." Miss Archdale.
"A Flock in the Snow." Miss M. C. Fisher.
"Misterton Park." Miss Britton.
"Chantry Hill in Snow." Miss M. C. Fisher.
"A Mountain Lake." Miss Oxford.
"Some Dutch Scenes." Miss Spalding.

CLASS B. *Portraiture, Figure, Animal and Flower Studies.*

1st Prize. "April Lambs." Miss Grahame.
2nd Prize. "Who are you?" Miss A. M. Phillips.
3rd Prize. "An Egyptian Donkey Boy." Miss M. Atkey.

Others deserving of mention in this class were:—

"A Group of Nurses." Nurse Price.
"A Moorhen's Nest." Miss Pollard.

CLASS C. *Architecture and Interiors.*

1st Prize. "A Cottage Door." Miss A. Lloyd.
2nd Prize. "The Lady Chapel at St Albans." Nurse Stones.
3rd Prize. "Dorcas Ward, Christmas time." Miss M. Smith.

CLASS B. Any subject, but not the entire work of the exhibitor. The Judge commended the following:—

"Fishing Fleet in Brixham Harbour." Mrs. Davey.
"Morning on the Lee." Miss J. Paterson.
"A Corner in Exeter." " "
"A Girl in the Garden." Miss A. Lloyd.

In this Class there were also several interesting Egyptian photographs sent by Miss M. Davis, a varied collection sent by Nurse Hills, and some Swiss scenes sent in by Sister Ellen.

The special prize for the best picture in the Exhibition was awarded to Miss Smith for an excellently rendered piece of work, entitled "A Country Byway," and another special prize for the best exhibit shown by a Present Member now working in the Hospital, was given to Nurse Du Boulay for a figure study, entitled "A Suppliant Arab."

An interesting collection of photographs illustrating Indian life and scenery were kindly sent by Mr. and Mrs. Barker (Sister Amy), well known to our members as the Secretaries of the Students' Glee Club, and the Nurses' Choral Society respectively, before their marriage.

After judging the photographs, Mr. Hollyer complimented the exhibitors on their efforts, and said the pictures showed a distinct improvement on those of last year. He had found it very difficult to award the special prize, as several of the other pictures had reached a high standard.

The prizes were again kindly placed at the disposal of the Judge by Lady Bective, Mr. Cosmo Bonsor, and Mrs. Trevelyan Martin.

Reviews, etc.

The price of books submitted for review should in every case be stated.

A Manual of Infectious Diseases. By E. W. Goodall, M.D., and J. W. Washbourne, C.M.G., M.D. (H. K. Lewis.) Price 14s. net.

This popular text-book has now reached a second edition, the revision of which has been carried out entirely by Dr. Goodall. Many new illustrations have been added, and new articles upon Glanders, Cerebro-spinal Fever and Plague have been incorporated. The book remains the standard text-book for all students who are attending the course of instruction on fevers demanded by the different examining bodies. Not the least valuable are the preliminary chapters upon Contagion and Infection, Sore-throat and Disinfection. In later chapters, Dr. Goodall has wisely refused to overburden the book with excess of bacteriological details. The illustration of skin lesions by photographs has always been difficult. The illustrations added to the present edition are of unequal merit. Some are clear and serve a useful purpose; others, for example Plate XI., add nothing to the value of the work. The new edition well maintains the high standard of excellence set by the first.

Proceedings of the Royal Society of Medicine, April, 1909. (Longmans.) Price 7s. 6d. net.

The important subject of the "Treatment of Shock during Anæsthesia," is dealt with by Dr. Dudley Buxton in the opening paper. The clinical section contains a series of cases of injuries to peripheral nerves and their surgical treatment, by Messrs. James Sherren, Tubby, Ballance, Fagge, and Sergent. To the dermatological section a striking case of improvement of a scar-keloid under treatment by X-rays is contributed by Dr. Sequeira. Dr. H. Lewis Jones deals with "The Treatment of Nævus by Electrical Methods, with notes of 1,600 cases." The medical section consists of a long paper by Mr. E. C. Hort on "Auto-inoculation versus Hetero-inoculation in the treatment of established Infective Disease." Dr. W. Rivers Pollock showed to the obstetrical section an interesting specimen of dermoids—one from each ovary—from an old lady who died at the age of 92, had been attended by Sir James Simpson and Matthews Duncan, and had had six children; the dermoids gave no trouble, although one of them reached nearly to the umbilicus. Among the rarities in this section is a "Case of Primary Ovarian Actinomycosis," by Dr. Frank Taylor and Mr. Welby Fisher. All dental students should read Mr. Ashley Densham's very interesting "Review of the Progress of Dental Science and Literature from the earliest ages." Mr. Sydney Scott communicates to the otological section a careful paper on the "Problem of Vertigo: Some new data obtained in a research into the functions of the semicircular canals in relation to movements of the eyeball in the human subject." In this, which Sir Victor Horsley described as "the paper of its year," the author expresses his belief "that it may possibly be found that various forms of nystagmus hitherto associated with labyrinthine stimulation bear such a striking resemblance to labyrinthine nystagmus that it is difficult to dissociate the causes of these forms of nystagmus from those which are acknowledged to be connected with stimulation of the semicircular canals." Mr. Alban Doran contributes to the Surgical section a case of "Urachal Cyst simulating Appendicular Abscess," with an account of the operation, and remarks on urachal cysts in general. Dr. Cecil Wall's paper on the "Treatment of Spasmodic Asthma" gave rise to an interesting discussion, to which Dr. Hertz contributed some personal experiences of the complaint. Another contribution by a Guy's man is the case of "Primary Sarcoma of the Suprarenal," communicated by Dr. H. C. Mann.

A Nursing Guide, 1909. Edited by the Matron of Guy's Hospital. (Ash & Co., Ltd.) Price 1s. 6d.

This well-known annual has now reached its fifth year. It presents the features of previous issues, thoroughly revised, and in addition has several new articles inserted. The Guide consists, as before, of a general section, and a section containing the Register of Guy's Nurses and the Handbook of the Nurses' League, while the Guy's Nursing News of the year is added in the form of a supplement. The general section contains articles on Nursing as a Profession, Private and District Nursing, Medical Electricity, Vaccine Treatment, etc., together with much useful information, some of which would be valuable to the medical man as well as to the nurse. In the section devoted to legal information we note one omission—the requirements of the Notification of Births Act, 1907, which are of some importance to maternity nurses.

The *Nursing Guide* should be in the hands of every aspirant to the profession, who will find much helpful information and advice in its pages. The Register of Guy's Nurses requires no commendation, for it is by this time quite indispensable as a book of reference.

Operative Nursing and Technique. By Charles P. Childe, B.A., F.R.C.S. (Baillière, Tindall & Cox.) Price 3s. 6d. net.

This little book gives a clear account of the duties of all concerned in the details of work in an operating theatre, and especially insists on all the niceties of the aseptic ritual; indeed, some of its directions must appear counsels of perfection to hospital workers who know that time and expense are also factors to be reckoned with. But this is an error on the right side in a matter such as operative technique, and it is only by continuous and conscientious attention to every slightest detail that the modern surgical nurse can become thoroughly competent. This book should be a valuable help in her training towards that goal.

The Differential Diagnosis of Bacteria, and Practical Bacteriology. By E. P. Minett, M.D., D.P.H., etc. (Baillière, Tindall & Cox). Price 2s. 6d.

In this nicely-printed, small, and neatly-arranged booklet, Dr. Minett places before us the gist of the morphological and cultural characters by which we are able to identify the various micro-organisms of disease, and also certain other micro-organisms which, though not in themselves pathogenic, are apt to be mistaken for disease-producing bacteria. Though not divided up into definite chapters, the clear headings indicate at once the mode of procedure, and the author deals, first of all, with organisms which are morphologically cocci; secondly, with those which are morphologically bacilli; thirdly, with the principal staining methods in use, with details as to how to use them, and then, in a rather curious way, introduces what he terms an appendix, but is really nothing more than an additional chapter giving the main points about such things as Widal's reaction, the method of taking the opsonic index, the method of counting organisms, the process of standardisation of bacterial emulsions, the procedure for making a blood cultivation from the living human subject, the method of isolating and growing infecting organisms present in morbid tissues sent for bacteriological examination, and, finally, the detection of the malaria parasite. Why these should be in an appendix rather than in a separate chapter of the book itself, is not quite obvious, but we congratulate the author upon the net result of his endeavours, for he has placed before both medical students and practitioners one of the simplest, most concise and clear books upon the differential diagnosis of bacteria that we know of. It will, of course, be useless to one who is not already acquainted, to some extent, with bacteriology, but as a reminding handbook it is excellent.

The Medical Annual, 1909. (John Wright & Sons.) Price 8s. 6d., net.

The present volume of this well-known annual well maintains the high reputation built by its predecessors. It is, as usual, divided into three parts, the first being a "Dictionary of Materia Medica and Therapeutics," the second a "Dictionary of Treatment," and the third a collection of Miscellaneons Articles dealing with such subjects as Sanitary Science, Legal Decisions, etc. The volume is completed by a list of the most modern improvements in medical and surgical appliances.

With regard to the actual contents of the volume, no adequate detailed description is possible, the subjects dealt with being so many and so varied. All the subjects, however, are treated with admirable clearness, and in all cases full references are given to the original papers. Though in most cases a paragraph or a page is all that is given, in some cases, *e.g.*, among others, the articles on Serum Therapy, X-rays in Diagnosis and Treatment, and Anæsthetics, several pages are devoted to a discussion of the latest work on the subjects. The book is, in fact, a *résumé* —and a good one—of the recent advances in all branches of medicine, surgery and allied subjects, and the arrangement of the book is admirably adapted for quick and easy reference, an important point in a work of this nature.

The book is well printed, and the illustrations are, as usual, excellent, especially those illustrating the diseases of the nasal accessory sinuses, the method of reproduction giving remarkably clear definition; moreover, in spite of the mass of information contained in it, the volume has been kept of convenient size. For all these reasons the Annual is essentially one for practitioners, and should be invaluable to all those in general practice who wish to keep in contact with recent work.

Appointments.

Civil.

HANCOCK, W. ILBERT, F.R.C.S. Eng., has been appointed Assistant Surgeon to the Royal London Ophthalmic Hospital (Moorfields).

MAHER, MAHMOUD, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Superintendent of the Beni Suef Government Hospital, Beni Suef, Egypt.

PIKE, NORMAN HOWARD, M.B., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon for the Eye, Ear, and Throat Department of the Cheltenham General Hospital and Dispensary.

Naval and Military.

Fleet Surgeon ROBLEY H. J. BROWN, R.N., has been appointed to the *Téméraire*, and Staff Surgeon G. E. DUNCAN, R.N., to the *Sentinel*.

Captain J. H. HORTON, D.S.O., I.M.S., has been appointed to the Civil Charge of the Bannu District, N.W. Frontier Province, India.

T. B. P. DAVIES, M.D., M.S. Lond., has been elected Chairman of the Milford Haven District Council. He has also just been appointed a Justice of the Peace for Pembrokeshire.

Papers by Guy's Men.

Herbert French, M.D. Oxon, F.R.C.P. Lond.: Some Clinical Aspects of Pernicious Anæmia.—*The Clinical Journal*, 5th and 12th May, 1909.

A. Ernest Maylard, M.B., B.S. Lond.: Acute Appendicitis.—*The Practitioner* for May, 1909.

W. Bernard Secretan, M.B. Lond., F.R.C.S. Eng.: Note on a Case of Jacksonian Epilepsy Treated by Trephining.—*The Lancet*, 1st May, 1909.

W. H. Maxwell Telling, M.D., B.S. Lond., M.R.C.P. Lond.: The Rheumatic Infection: A Clinical Study.—*The Practitioner* for May, 1909.

Captain R. Tilbury Brown, R.A.M.C.: Hints on Camping Arrangements for Sanitary Officers.—*Journal of the Royal Army Medical Corps* for May, 1909.

On Spinal Softening, commonly called Myelitis,

and on the recent advances in our knowledge of the Afferent Sensory Tracts.

CLINICAL LECTURE BY G. NEWTON PITT, M.D.

GENTLEMEN,—I want to-day to bring before you the notes of a very remarkable case, that of a boy who had acute osteitis of his spine, and as a consequence what appeared to be an acute ascending paralysis, the true condition of the spinal condition not having been obvious at the time he was admitted.

ACUTE OSTEITIS OF THE VERTEBRÆ, SUPPURATIVE PACHYMENINGITIS WITH INFECTION OF THE NERVE ROOTS, ASCENDING PARALYSIS, THROMBOSIS OF THE SPINAL ARTERIES, SPINAL SOFTENING, PARAPLEGIA, ASCENDING PYELONEPHRITIS, PERINEPHRIC ABSCESS.

The Clinical Reports of the case are by Mr. Malcolm Ball and by Mr. Pinching.

A boy, aged 15, was admitted under Dr. Hertz on September 26th, 1908. He had been perfectly healthy until ten days previously. On the 16th he was out of sorts, and was thought to have some vague illness, possibly influenza. He had pains in his back, but not severe enough to keep him in bed. There was no rigidity of the spine nor history of an accident. On the 18th the pain had increased, he was much weaker in his legs, with marked pain in his chest, rather a feeling of tightness than a definite girdle pain.

On the 19th he was brought to the hospital, when his temperature was 102°, and he was told to attend on the following Monday, September 21st. On arriving home, the weakness in the legs rapidly increased, and by the 21st he had marked paraplegia. The acuteness of the onset is typical of spinal thrombosis. Between the 21st and 26th the paraplegia gradually became complete. There was a gradual onset of incontinence of fæces, and retention of urine with overflow, and this trouble increased.

On admission he was found to be a well-developed boy for his age. There were no knee-jerks nor plantar reflexes, and the sensation in the legs was impaired. Sometimes he could localize a touch, at other times he could not, although he could realize that he had been touched; there was a dysæsthesia. Perhaps very careful investigation would have shown that he appreciated when pressure was applied rather than a touch. The impairment of sensation extended as high as the level of the anterior superior spines; below this he could detect extremes of temperature, though not minute differences. This difference of appreciation is a very important one. The abdominal muscles were flaccid, and the bladder tended to become over-distended. His arms were not affected. The pupils and the optic discs were normal. He had some tenderness over the seventh dorsal vertebra, and there were two large sloughs over the sacrum, due to the vigorous application of turpentine before admission. The lungs and urine were normal. He had urotropine given him to prevent his urine from becoming foul. The result of a lumbar puncture was negative. On the 29th the anæsthesia had extended to the level of the umbilicus. The sixth and lower intercostal muscles did not move on respiration, and he had some vague pains in his back. The next day, September 30th, the anæsthesia had extended a little higher, and there were a few moist sounds at the base of his lungs. He came under my care on October 1st, almost moribund, and his respiratory weakness was so extreme that he did not seem likely to survive many hours. Hence he was not overhauled to the extent that he would have been had he been less critically ill, but was left undisturbed. The next change noted was that on October 6th he had severe diarrhœa. We did not realize at the time that it was probably septic in origin, due to the suppuration we discovered later on. The ninth and tenth dorsal vertebral spines were observed to be too prominent, and there was distinct œdema to the left of the spine, but the swelling did not pit readily. The anæsthesia gradually became more complete, and he was unable to feel any form of touch. He could not differentiate at all between hot and cold, and there was complete analgesia below the level of the eighth dorsal. At this date there was pus in the urine, and an examination of his blood showed a pure culture of streptococcus longus.

A large soft diffuse fluctuating swelling was now palpable on the right side of the abdomen, extending from the iliac fossa upwards as high as the liver. It was retroperitoneal, and contained fluid. It seemed to be situated too far from the middle line to be a spinal abscess. The view we held at that time was that the patient had spinal caries with compression paraplegia, but it was difficult to explain the origin of this large acute swelling in the abdomen. There was vomiting and severe diarrhœa.

On the 10th the patient was extremely ill, the œdema on the left side of the spine had increased, and it was obvious that there was suppuration. The temperature was now raised; it rarely fell to normal, but varied between 100° F. and 101° F., sometimes rising to 102°. He had no rigors. An incision was made into the abdominal swelling under cocaine, as he was too ill for a general anæsthetic. It was found to be due to a perinephric collection of purulent urine; there was very little doubt that he had an ascending suppurative nephritis, one focus of which had burst externally, and there was an extravasation of urine into the adjacent connective tissue.

The swelling in the back, which was diffuse and flaccid, and was neither brawny nor hyperæmic, was explored with a hypodermic syringe, but the lumen of the needle was rather small, and no pus could be drawn off. The boy gradually became worse, the vomiting persisted, and he died on the 13th.

It was thought we should probably find spinal caries. The fact that we had obtained a pure cultivation of a streptococcus from the blood, together with a history of only ten days' illness, ought to have made us realise that we had to deal with an acute suppuration. The absence of all local reaction, or hyperæmia, and the extreme rarity of the nerve lesion, led us astray.

Post-mortem, the muscles of the back were found to be diffusely infiltrated with sero-pus without any localised abscess; there was also an acute osteitis with necrosis of the eighth, ninth, and tenth vertebræ, with acute necrosis of the ninth left rib. The pus had also burrowed behind the base of the left pleura. The bones were bare on the surface. When the spinal canal was opened, we found an acute infective process over the whole of the circumference of the outer surface of the dura mater, which was bathed in pus; the membrane was reddened, thickened, and inflamed, and the acute inflammation extended from the eighth dorsal nerve down to the coccygeal region. There was acute cystitis with consecutive pyelonephritis; the pelves of the kidneys were dilated, there were numerous abscesses in the kidneys, and, as we had suspected, one of these had burst into the adjacent connective tissue.

Acute osteitis of the spine is very rare, and we have only had three fatal cases of osteitis during the past twenty years, and none of these were acute.

In one of these, which was due to a tuberculous caries, there was pus over the whole of the surface of the pia-arachnoid of the lower part of the cord.

I do not remember to have seen a similar case to the present one, in which the pus had accumulated between the dura mater and the vertebræ, but Dr. Fagge refers to one such. In the present case the pus had gravitated down and practically filled up the space in the spinal canal to the level of the osteitis, so that there was also inflammation set up in the nerve roots as they passed across.

Clinically there was an acute ascending paralysis, which was found to be due to a spreading ascending infection on the outer side of the dura mater. This was followed by a paraplegia due to a lesion of the spinal cord.

At first there was an appreciation of extreme differences of temperature, and not of slight ones; there was an impaired sensation to touch, which often could not be localized, at other times it could, suggesting that pressure was better appreciated than light touch. These changes indicated a lesion of the peripheral nerves. Later the loss of all appreciation of touch and of pressure, and the greater inability to localize the analgesia and the insensibility to all degrees of temperature, made it clear, even during his lifetime, that there was also a lesion of the spinal cord.

There were two possible explanations of the symptoms.

(*a*) Compression paraplegia due to the pressure of the accumulated pus on the cord, but as it was not encysted this was unlikely.

(*b*) Infection followed by thrombosis of the vessels in the dorsal region of the cord leading to a secondary softening associated with a neuritis of the lower nerve roots.

(*c*) The third possibility was that there was a local abscess in the dorsal region of the cord, but such is a very exceptional occurrence.

This case affords a very good opportunity for drawing your attention to two main advances which have been made in our knowledge during the past ten years. One is the different grouping of the afferent impressions in the peripheral nerves and in the spinal cord. The other refers to the causation of so-called myelitis and the necessity for a revision of our nomenclature.

I would first direct your attention to the results of Dr. Head's researches on the way in which afferent impulses are transmitted. They have entirely revolutionized our views about afferent impressions.

His work represents an enormous number of careful observations, by Dr. Rivers, by himself,

and by Mr. Sherren; his results are already in the main accepted.

He points out that there are three channels for the various varieties of sensations from the periphery. First there is that for deep sensibility; secondly, that for what he terms the protopathic; and thirdly, that for the epicritical.

With the first of these we appreciate deep pressure, and when it is excessive, pain; and we can localize it; we also appreciate alterations in the positions of the joints, muscles, and tendons. The fibres subserving this form of sensibility run with the muscle nerves.

The protopathic fibres enable us to appreciate painful cutaneous stimuli, to respond to extremes of heat and cold, *i.e.*, below 20° C. and above 45° C. It does not tell us, however, how hot or how cold. It is the form of sensation with which the viscera are supplied. When an enema is injected into the bowel the patient cannot tell you from the sensibility of the mucous membrane whether it is hot or not unless the temperature is above 115° F. The painful sensation from a prick or from a strong electrical current is also conveyed by the protopathic fibres, but the sensation is diffuse and cannot be localized. The fibres which transmit heat and cold are distinct from one another. Dr. Head also found that there are hot and cold spots, and these can be accurately mapped out on the skin when it has been deprived of its epicritical sensation, so that if you are touched between the spots you do not appreciate temperature at all.

By the epicritical fibres you appreciate a light touch, and you can discriminate its character; for instance, you can tell whether you are touched by one or by two points of compasses, and how far those points are apart. You can also by this channel know whether you touch a rough or a smooth surface, and can accurately localise it. You can also detect slight differences in temperature. Both protopathic and epicritic sensibility are transmitted by the sensory cutaneous nerves. But they differ in several respects. The protopathic fibres correspond very much to the posterior nerve roots, and the various nerve roots overlap one another considerably. Epicritical sensation is regulated by the peripheral fibres, and there is very little overlapping. Dr. Head experimented on himself by having a portion of the radial and external cutaneous nerves excised and resutured, and then studying the various changes in sensation. After the operation the region affected was only supplied at first with deep sensibility. The protopathic and epicritical fibres regenerated unequally. After about seven weeks he began to recover his protopathic sensation, and in about seven months it was practically complete. He did not begin to recover his epicritical sense under ten months, and after about a year that also was again complete. He therefore had three distinct periods in which he was able to study the various sensory disturbances. Having obtained this basis from his own experience, he investigated a very large number of cases from this point of view, and has collected a large amount of material, which quite justifies him in saying that, in the main, this theory presents a very much more accurate view of our afferent sensations than we have previously had. We are born with our protopathic and deep sensibilities; the epicritical is a matter of education and development. When the epicritical is absent there is no power to control the reflexes. If you prick a person on the hand who has lost his epicritical sensibility, he is bound to draw his hand away, and if you hold his hand while you prick him he is bound to shout. A child is constantly on the move, and is so because the epicritical sense has not developed. When it has done so, its movements are controlled, and the reflexes are not allowed unrestrained play.

Now, how do these various fibres run in the cord? First we have to bear in mind that they are re-arranged, all touch stimuli are collected together, so deep pressure and epicritic, touch appreciation, will be joined into one tract. Painful stimuli, whether protopathic or deep, will be aggregated in another tract, and temperature sensations, whether epicritic or protopathic, will be in a third. So if, with a spinal cord lesion, you lose appreciation of touch, you also lose appreciation of pressure. If in a spinal cord lesion any temperature is appreciated, all temperatures will be appreciated. If you fail to appreciate pain from one cause, you fail to appreciate it from all causes. This explains many things which were previously obscure, because it had not occurred to anyone that there was this shunting of fibres soon after they enter the spinal cord.

The only fibres which run any distance homolaterally in the posterior columns, *i.e.*, without crossing over, are those which regulate passive movement and position with consciousness, and those of tactile discrimination (compass points).

Homolaterally, also, in the direct cerebellar tract run the unconscious impulses regulating co-ordination and muscle tone.

Fibres having the same function run heterolaterally in the ventral spinocerebellar, or Gowers' tract.

In the spinothalamic tract, internal and anterior to the last, run the crossed fibres for pain, heat and cold, while the fibres for touch and pressure run in the anterior columns, also heterolaterally.

The distance that the various fibres run before they cross varies, and hence the complexity of the sensory disturbances in some cord lesions. The fibres conveying painful stimuli from any area from pressure do not enter through the same nerve roots as the protopathic ones.

To apply these conclusions to the present case. The patient at first could not localize perfectly, but he knew when he was touched, but his impression varied with the amount of pressure that was applied. He did not notice a light touch. He sometimes knew whether what touched him was hot or cold, but not always, and he could not always localise it. His epicritical sense was therefore disturbed. Before his death he could not detect nearly so much as at first. The evidence therefore shows that when he first came in he had a lesion involving the lower lumbar nerves, but before he died there was distinct evidence that he also had a lesion in the lower portion of the cord, and this was found at the post-mortem to be so.

Singer, on investigating the cases at the National Hospital for two years, found that of nineteen diagnosed as myelitis, fifteen were certainly syphilitic, two were in old men with atheromatous arteries, and practically there was evidence that almost all were due to spinal thrombosis with softening, and not to myelitis at all. Erb, a few years ago, emphasized the enormous importance of syphilis as a cause of so-called myelitis, but which we now realise ought to be called spinal softening. Mr. Pinching has looked up the cases which we have had in the last three years, and, although they do not point such a strong moral, they go the same way. Out of fifteen cases of myelitis five were undoubtedly syphilitic. If the cases could be more thoroughly investigated, I have no doubt others would be found to have that origin, because the history and evidence of a past syphilis are frequently vague.

The failure of minute vessels to supply tissues properly with blood is probably not infrequent, but it will only produce diagnosable lesions when the retina, the spinal cord, or, rarely, the brain are in question. When elsewhere, as in the skin, they are overlooked.

A few years ago I had a small child under my care with fungating endocarditis, who suddenly developed incontinence of urine with a partial paraplegia. No doubt there was embolism of a vessel supplying the spinal cord, which induced a patch of softening; the symptoms, after a time, cleared up.

It is noteworthy that men are three times as often affected as women.

The changes also in the spinal cord which are due to traumatism, compression, paraplegia, and around tumours, are for the most part vascular, and due to softening, although they are described as myelitis.

Dr. Moxon, many years ago, drew attention to the exiguous blood supply of the lower part of the spinal cord, and hence to the frequency with which cold and exhaustion are able to have an influence in producing spinal cord symptoms by the failure of the blood supply.

As to the causation of myelitis. The books tell you that fatigue, cold, etc., are the common causes of myelitis. They may precede the onset of the symptoms, but out of 1,000 people exposed to cold, less than one will develop myelitis. This is equivalent to saying that we are not clear as to the causes of the lesion.

In 1868, Dr. Charlton Bastian was the first to draw attention to the fact that cerebral softening was due to occlusion of the cerebral vessels; this is now universally recognised.

About 1882 he also pointed out that a similar proposition holds good in the spinal cord. Under the term "myelitis" are included both infective and necrotic processes. Two distinct terms should be used; spinal softening should be applied to the case of occlusion of the vessels with necrosis of the nervous tissue, and myelitis to the far more rare conditions in which there is an infective local lesion. Hitherto the latter term has been applied to both processes, but careful microscopical examination shows that the two are quite distinct.

In acute syphilitic myelitis the cord is diffluent, and does not take the stain readily. There is no aggregation of leucocytes, no inflammatory reaction, but there is thrombosis with enderarteritis of the small vessels.

Undoubtedly, however, there are occasionally cases of infection in connection with measles and typhoid fever, and also of local infection leading to abscess. Collier and Turner have recently drawn attention to the great infrequency with which suppuration is found in the spinal cord, and refer to three cases of spinal softening, secondary to cancer of the spine, and to caries in which a secondary suppuration took place in the necrosed nerve tissue, possibly secondary to cystitis which was present in each case.

Experimentally it has been found very difficult to produce myelitis in animals by inoculation with organisms, but still it has been done several times, and the organisms have been found in the lesions. Almost invariably any attempt to cultivate organisms from a patch of so-called myelitis fails. This is generally because it is not an organismal process; and partly it may be that since, as Dr. F. Buzzard has shown, the lymph stream passes out through the dura mater along the nerve roots it is at these spots that organisms will collect, but, until recently, the dura mater has not been thoroughly examined for organisms.

It is found that local diseases of the spinal cord are occasionally associated with optic neuritis, the systemic degenerative diseases being left out of consideration. Dr. James Taylor has shown that this occurs in about eight per cent., and an examination of the records shows that neuritis does not occur with lesions lower than the fourth dorsal, and that practically it is limited to lesions of the cervical cord, though why it should occur is obscure, but it is probably in connection with the fibres of the cervical sympathetic which pass down the first dorsal nerve.

About 30 per cent. of the cases of spinal softening, tumour and hæmatomyelia in the cervical region have this association.

The neuritis is no argument in favour of an infective origin, as against a necrosis, as the association is an anatomical one. It was at one time suggested that the neuritis suggested alcoholism, because there was this symptom in one or two of the cases, but it was exceptional.

On many grounds, therefore, we find that the term "spinal softening" would be more accurately applied to the majority of the cases which are described as myelitis. We have long ceased to speak of cerebritis as a common lesion of the brain; let us also cease to use the term myelitis for the spinal cord, unless there is reason to suggest some probable cause for inflammation.

Change of Address.

Henry Clarke, M.D., from Love Lane, Wakefield, to Courns Wood, Hughenden.

David R. T. Griffiths, L.S.A., L.M.S.S.A. Lond., from Aber House, Barmouth, to "Bryn," Barmouth.

Edmund Lloyd, M.B., B.C. Camb., from C.M.S., Bor, Sudan, to C.M.S., Omdurman, Sudan.

John Owen Williams, L.R.C.P. Lond., M.R.C.S., from Aber House, Barmouth, to "Bryn," Barmouth.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

"Jim."

I wonder what you think of "Jim,"
Who's lately taken his degree.
I very rarely spoke to him,
Or he to me.

But sometimes in the Colonnade
Such people to one's mind recur—
He spent his five years here, and made
So little stir.

For since he first arrived hereat,
Till, latterly, the wards he trod,
His only greeting was a mat-
utinal nod.

Yes, words were very rare, and such
Were mainly to his work adjusted,
Yet he but knew about as much
As most of us did.

(For had he burnt the midnight oil
And found in books his chiefest asset,
We might have thought he tired with toil,
And thus was tacit.

But, as I said, this wasn't so—
A very likely theory shattered—
He was like most of us, although
He never chattered.)

I wonder if he nursed a lot
Of thoughts original and splendid
That ordinary folk could not
Have comprehended.

So that in nineteen-what-you-please
He'll be the newest necromancer,
And find a cure for heart-disease
Or cope with cancer.

Or if, alas! the thing that led
Him ne'er to waste in speech a minute
Was simply that that silent head
Had little in it!

Ah! well, what actuated him
Another cannot guess, and so
I hope if this is read by "Jim"
He'll let me know.

For though he will not think me wise,
And lightly may this metric thought rate,
He cannot fail to recognise
A humble portrait.

S. S.

Periodicals received.—The Manchester University Magazine; The M.S. Journal; St. George's Hospital Gazette; The Hospital; The Clinical Journal; St. Bartholomew's Hospital Journal; The Nursing Times; London Hospital Gazette; South African Medical Record; Glasgow Medical Journal; Calcutta Medical Journal; Gazette Médicale de Paris; Polyclinic; Prescriber.

The Present-Day Treatment of Syphilis:

Its special value in Prophylaxis and in Prevention of Recurrence.

The Treasurer's Prize Essay.

Read before the Physical Society, on 17th March, 1909, by Lieut. H. Stott, I.M.S., M.B., B.S.

Mr. Chairman and Gentlemen,—A study of the present-day treatment of syphilis cannot but be of keen interest to anyone who has the welfare of the community at heart.

Few therapeutical measures can so rapidly check the active symptoms of a disease, and so certainly prevent the disastrous ravages of its virus, as those applied to the cure of syphilis.

Without treatment, syphilis was justly held one of the most dreadful scourges which could be inflicted upon mankind; with efficient treatment, on the other hand, an early case of lues is little more than a mild infection.

The application, then, of efficient treatment to such a disease as syphilis is scientifically and socially of the gravest concern, and of the deepest interest to every one of us.

For the purposes of this paper, we will consider the present-day treatment of syphilis under the following heads:—

1. The pathology of syphilis, bearing on its treatment.
2. The prophylactic treatment of syphilis.
3. The abortive treatment of syphilis.
4. The general treatment of syphilis.
5. The mercurial treatment of syphilis
6. Zittman's formula and hydrotherapy in the treatment of syphilis.
7. The local treatment of syphilitic manifestations.
8. The iodides in the treatment of syphilis.
9. The treatment of syphilis by vaccination and serum-therapy.
10. The treatment of syphilis by the arylarsonates alone.
11. The treatment of syphilis by the arylarsonates in combination with mercury.
12. The surgical treatment of syphilis.
13. The treatment of congenital syphilis.
14. Treatment as an aid to the diagnosis of syphilis.
15. Summary of the present-day treatment of syphilis.

We shall then, finally, briefly discuss the special value of such treatment with regard to the prophylaxis of, and the prevention of recurrences in, this disease.

1.—The Pathology of Syphilis, bearing on its Treatment.

All truly scientific treatment is based upon a knowledge of the pathology of a disease; and, although this paper is primarily intended to deal with the present-day treatment of syphilis, yet it is only with a clear understanding of the accepted pathology of this disease that we can apply our remedies with an intelligent interest as to how, and why, they act. The pathology of syphilis will, then, be briefly considered here.

The determining factor in the production of this disease is the entrance of an organism—the spirochæta pallida—through an abraded surface. This invasion is followed within a few hours by a general systemic infection,[1] which infection does not manifest itself for some weeks when the primary sore develops.

Treatment by excision of the primary sore, then, as once advocated, can be of no avail, which fact has been abundantly proved by clinical experience.

After invasion, the spirochæta pallida has been universally found in the lesions of the primary and secondary stages, that is to say, it has been found in the hard chancre, the indurated glands, the blood, the throat lesions, the various eruptions, and even in the internal tunic of the aorta;[2] whilst numerically the spirochætes exist in the greatest numbers in the mucous tubercles and condylomata, and in the discharges from them.

The therapeutical lesson we learn from this, is that applications to such primary or secondary lesions can be productive of naught but good; moreover, bacteriologists tell us that mercurial washes bring about a disappearance of the organism from the superficial layers of the lesion.[3]

In primary and secondary lesions, then, it is assumed that the organism is constantly present. It is different, however, with lesions of the tertiary stage, in which the spirochetes can very rarely be demonstrated; but there are undoubted tertiary lesions on record in which the spirochætes have been definitely identified.[4]

Neisser, too, has proved that tertiary lesions sometimes contain the virus of syphilis, by inoculating seventeen monkeys with the discharges from seventeen different ulcerating gummata. Five monkeys of the seventeen subsequently developed primary and secondary symptoms.[5]

Therefore, it would seem that the presence and virility of the spirochæte is sometimes to be demonstrated in tertiary syphilis. If this be the case, and if we regard mercury as a specific poison to the parasite of syphilis, then we should not withhold the administration of this drug in cases of tertiary syphilis, especially if the patient has not previously undergone a mercurial course.

Why the spirochæta does not bear a casual relationship to tertiary lesions is unknown: there are two explanation given to[6] account for their apparent absence:

i. The spirochætes themselves may have, as trypanosomes undoubtedly do, assumed a different form, and so escaped detection.

ii. The lesions may be the resultant of an earlier invasion by the spirochætes, which, by the time the clinical manifestations are present, have themselves disappeared.

1. Leishman. Manual of Venereal Diseases, p. 40.
2. Reuter. Zeitschrift für Hygiene, vol. liv., p. 49, 1906, confirmed later by Schaudinn.
3. Leishman.
4. Spitzer. Bull de l'Institut. Pasteur, vol. iii., p. 884, etc.
5. Neisser. Deutsche Med. Woch., p. 493, 1906.
6. Leishman. M. V. D., p. 88.

The interesting discussion as to whether the spirochætes should be classified amongst the bacteria, or amongst the protozoa, has some practical bearing on the therapeutics of syphilis. For if, on the one hand, the spirochæta pallida be a bacterium, then the possible treatment of this disease by vaccination and antiserum must be considered. But if, on the other hand, the organism be a protozoön, then the possibility of success by such treatment is, at the present day, not at all clear, and the application of the aromatic arsenic compounds recently found so inimical to protozoal life must be diligently investigated.

We have heard so high an authority as Colonel Leishman, of the Royal Army Medical Corps, express himself as "feeling very strongly" that the spirochætes are of protozoal and not of bacterial nature, and it would seem, both as a result of pathological investigation and therapeutical observation, that this is actually the case.

2.—The Prophylactic Treatment of Syphilis.

Owing to the numerous moral and social side issues involved, the prophylactic treatment of syphilis can never, apparently, attain that prominence to which prevention as a means of combating disease should entitle it. Much, however, can and should be done to decrease the spread of this contagious venereal disorder.

The manly self-restraint of continence can be taught, its possibility and healthfulness pointed out, and advice given as to how this ideal prophylactical measure may be best maintained. Early marriage may at times be advised.

The dangers of incontinence may be described, so that by imparting our knowledge both as to the fact of disease which may be contracted, and as to the fact of the serious manner in which the future health of those who become infected may suffer, we may educate the laity to the grave risks they run in promiscuous intercourse.

Temperance, too, is no mean factor in the prophylaxis of lues. In the army for the last 25 years, coincident with an increase of temperance, there has been a marked decrease in admissions to Military Hospitals from syphilis and other venereal disorders. Lieut.-Col. Melville, R.A.M.C., has again and again expressed the opinion that this decrease is in no small measure due to the more sober tendencies of the present-day generation of soldiers.

Personal cleanliness plays an important part in the ætiology of this disease; it is the filthy low-class prostitute with whom no self-respecting man would consort, save when intoxicated, who is a great source of the spread of syphilis.

Early correct diagnosis, and prompt efficient treatment, with a warning to the patient of his risk of infecting others, must tend towards diminishing the spread of this disease, as will also the prohibition of an infected individual from marrying until a full course of treatment has been undergone, and until at least two years have elapsed since the last manifestations of syphilis.

The infectivity of the discharges from primary, secondary, and some tertiary syphilitic lesions must be borne in mind; and means must be taken to prevent the possibility of their access to those susceptible to the luetic virus. It should be remembered that the bile, urine, bronchial, and nasal mucous, as well as the meconium of congenitally tainted infants have been shown to be contaminated with the spirochæta pallida. A syphilitic child should not therefore be suckled by a healthy wet nurse; nor, *per contra*, should a healthy child be suckled by an infected nurse.

In cases where the syphilitic patient will not abstain from sexual intercourse, actual contact during coitus must be prevented, since we now know for certain, as the result of monkey inoculation, that the semen of a syphilitic man is infectious.

Professor Metchnikoff in the Harben Lectures for 1906,[7] threw out suggestions of treating syphilis prophylactically by vaccination with a virus attenuated by its passage through the anthrapoid apes and lower monkeys, giving details of a case so immunized. There is, however, a forcible argument against prophylactic anti-syphilitic vaccination, for we know that some patients with general paralysis of the insane and tabes have only shown quite insignificant signs of syphilitic infection.

Speaking at the Fourteenth International Congress of Hygiene and Demography, Metchnikoff stated that a single dose of atoxyl sufficed to protect monkeys from experimental inoculation; and further, that this dose was successful if carried out a week or even a fortnight after inoculation; and that this atoxyl really neutralized the virus was proved by the fact that monkeys could be reinfected with syphilis some months after the atoxyl treatment.[8] But, practically, these experiments of Metchnikoff's, interesting though they be, are of little value.

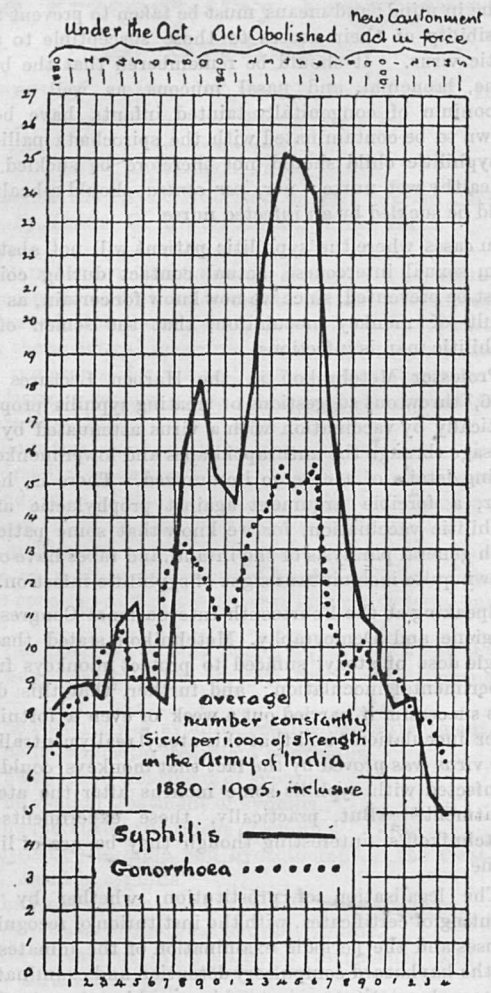
The legalisation of prostitution, whether by the granting of certificates, with the institution of recognised houses and the periodic examination of the inmates, or by the haphazard compulsory detention and examination of casual prostitutes, is too big a subject to enter into in this paper, and would hardly ever seem to be acceptable to the people of England.

In India, however, the effect of the repeal of the Contagious Diseases Act, as applying to our Indian Forces, in 1889, is graphically shown by the following curve, drawn up by Lieut.-Col. Melville.[9] (See next page.)

The enormous fall, too, in the number of men reporting sick from lues, since the introduction of the New Cantonment Act in 1897, is remarkable.

With regard to the prophylactical treatment of venereal diseases amongst troops, the French Army and the German Navy have recently adopted certain measures calculated to diminish the incidence of such diseases. The results of these experiments will be awaited with interest.

7. Lancet, vol. i., 1906, p. 1629.
8. B. M. J., vol. ii., 1906, p. 1075.
9. M. V. D., p. 263.



Surgeon N. H. Mummery, R.N., has drawn up a plan of which he advocates the adoption in the British Navy.[10]

To summarize:—The essentials in the present-day prophylactical treatment of syphilis are—continence; temperance; personal cleanliness; efficient treatment; and, in certain cases, some kind of legalisation of prostitution.

3.—The Abortive Treatment of Syphilis.

Professor Metchnikoff has proved that syphilis can be aborted in monkeys which have been well inoculated by scarification with material from primary sores, provided that the site of inoculation be well rubbed for five minutes with a mercurial ointment containing 25 per cent. of calomel in lanoline. Even if within eighteen hours after the inoculation the part be rubbed, no syphilis will develop.

10 B. M. J., August 15th, 1908, p. 394.

As a result of these experiments he proceeded with the following interesting test:—

A young medical student, who had never had syphilis, and four macaci were inoculated with the same virus from the chancres of two syphilitic men.

An hour after the inoculation the young man and one macacus were rubbed for five minutes with an ointment containing one part of mercury and two of lanoline; neither student nor monkey developed evidence of any syphilitic lesion.

A second macacus was rubbed with the ointment twenty hours after the inoculation; it developed primary lesions after thirty-nine days.

The two remaining macaci were not rubbed at all, but were used as control animals; these showed primary chancres after 17 days.

These experiments, then, demonstrate that the application of mercurial ointments could be employed with advantage after every suspicious contact, especially if any slight local abrasion be present.

4.—The General Treatment of Syphilis.

The patient's health should be supported as much as possible, and a change of scenery may be considered advisable, with his friends, if the circumstances of the case permit, and the patient becomes at all depressed mentally. Outdoor exercise, without fatigue, should be encouraged. Alcohol should be prohibited, but smoking may be allowed in moderation.

The whole of the gastro-intestinal tract should be most carefully kept in the best possible condition, for mercury is partly excreted by the alimentary mucous membrane, and may readily set up catarrh. The mouth toilet should be diligently performed, stumps and carious teeth should be attended to by the dentist, tartar scraped away, and a tooth powder prescribed. If the mouth be foul, an antiseptic mouth-wash (hydrogen peroxide) may be ordered, followed later by an astringent one (acetate of alum). The diet should be liberal and easily digestible; fruit, green vegetables, coffee, and other articles likely to increase peristalsis should be eschewed.

During the intervals of rest between any courses of treatment, general tonics, such as iron, arsenic, or strychnine, may be prescribed, if thought advisable.

Efficient treatment at every stage should be rigidly insisted upon—in the primary and early secondary stages with the main object of preventing the development of the late secondary and tertiary lesions, and, in the third stage, with the full knowledge that, unless strict treatment be instituted, the lesion will not of itself show any tendency to amelioration, but will rather progress to a destruction of the part and of the patient himself.

The risks run in after-life by the syphilitic who does not conscientiously follow out the prescribed course of treatment should be pointed out, and at the same time his infectivity to his fellow-creatures should be made clear.

5.—The Mercurial Treatment of Syphilis.

General Considerations:—As a fundamental principle, we must recognize that there is one drug, and, at present,

one drug only, which can undoubtedly cure syphilis, and that this drug will in most cases prevent those terrible results of syphilitic infection which used so frequently to be seen in the untreated. Therefore, it behoves us to see that this remedy is applied to the patient in the way surest to relieve him from his affliction. But before describing the various methods by which mercury may be introduced into the patient's system, we must first examine those conditions which render the administration of mercury dangerous, and hence modify or contraindicate its use.

Firstly, then, as to the kidneys.—Mercury is largely excreted by the kidneys, and if the latter be the seat of a chronic nephritis, then mercury will only be excreted by them to a slight extent, or, indeed, its renal excretion may be altogether suppressed. If, then, a patient has albuminuria due to a nephritis, no mercury should be given until the nephritis has cleared up. If, however, albuminuria is found, but nephritis is not diagnosed, then small doses of mercury should be given to start with, and if the albumen now clears up, then it probably was merely a sign of syphilitic infection, and full doses of the drug should be administered. But if, on the other hand, the small mercurial doses cause an increase in the albuminuria, then the drug should be stopped, and the urine examined until it be found free from albumen, one month after which date it may again be given.

Secondly, as to the body nutrition, as shown by the weekly weight chart.—Luetic infection naturally produces a fall in the patient's weight, and the administration of mercury, antagonizing the syphilitic virus, is naturally followed by a corresponding increase in weight. If, however, too much mercury is being given, the body-weight will again decrease. If, then, during the course of mercurial treatment the body-weight decreases, other conditions of such decrease being excluded, either the patient is absorbing too little mercury, and hence is being poisoned by the syphilitic virus, or the patient is accumulating too much mercury in his tissues (often a result of renal insufficiency), and is therefore being poisoned by the drug itself.

Thirdly, as to the existence of present or recent disease.—Mercury is also excreted by the gastro-intestinal tract, wherefore, if severe disease of this tract be present, *e.g.*, dysentery, diarrhœa, or hepatitis, then mercurial treatment may be contraindicated. Old and debilitated people, broken-down alcoholics, tubercular subjects, and those with lead poisoning and severe gout, stand mercury badly; hence, if this treatment be decided upon, a start must be made with small doses, and the patient should be carefully watched.

Fourthly, as to the existence of mercurialism.—This is first shown by a loss of body-weight, and later by an oncoming albuminuria, stomatitis and tremors. The treatment consists in stopping the administration of mercury, in ordering hot-air baths, and in prescribing small doses of the alkaline sulphates.

Mercurial treatment should be commenced as soon as, but not before, syphilis is diagnosed, and should continue for at least two years.

The mercurial administration may be continuous (as usually advised by the English and American authorities) or intermittent (as taught in the Continental Schools and as prescribed in our own Army). By the former method, some mild form of mercury (*i.e.*, pills, powders, or mixtures) is given continuously, and the patient is constantly kept slightly under the influence of the drug; whilst by the latter, a sudden onslaught (*i.e.*, by inunction or intra-venous, or intra-muscular injection) is made on the spirochæta pallida with large initial doses of mercury. A rest is then given to the patient to recover from the effects of the spirochætal invasion, and of the mercurial administration, which rest is followed by other successive courses of active treatment and repose.

Mercury may be introduced into the system by one of the following therapeutical routes:—

a. By the mouth (pills, powders, or mixtures).
b. By injection (intra-venous or intra-muscular).
c. By the skin (inunction or vapour baths).

We will now firstly consider the different advantages of treatment by any one method, and then, secondly, the varied techniques employed when a certain method has been decided upon for practical use.

Treatment by the mouth has the advantage of being absolutely painless. It is cleanly too, not dirtying the patient's clothes. Moreover, the patient may, with slight trouble to himself, regularly take his pills, powders, or mixture, merely reporting his progress to the surgeon, who is not bothered with the technique of the injection.

Against these trivial advantages, serious disadvantages have to be weighed:—

Firstly, the surgeon has to depend upon the patient's statement that his medicine has been regularly taken.

Secondly, the patient is only slowly brought under the influence of mercury, for, when given by the mouth, mercury does not appear in the urine until the third day, whereas after injection it may be detected after the space of a few hours.[11] Hence, if it is desired to rapidly exercise the full power of the drug, buccal administration should not be employed alone.

Thirdly, the amount of mercury absorbed is limited, and much of that introduced by the mouth is passed unassimilated. Treatment must therefore be necessarily prolonged without intermission in order to obtain the required saturation of the system essential for the neutralization of the syphilitic virus.

Fourthly, for the same reasons the severe tropical and malignant forms of syphilis are rarely benefited.

Fifthly, and lastly, a risk of setting up gastro-enteritis is run when this method of mercurial administration is persisted with.

Every one of these disadvantages to the administration of mercury by the mouth is an argument in favour of the intra-muscular injection of the drug; when the treatment is entirely under the surgeon's control, the amount of mercury introduced can be accurately measured, whilst its introduction into the body is an operation nowadays devoid alike of danger and pain, provided sufficient care

11 M.V.D. p. 5.

be exercised in the choice of the needle, cream, and in the manner in which the technique is carried out.

With regard to inunction, an old Guy's man, Major Pollock, R.A.M.C., says it is "one of the best ways of curing syphilis." But the skilled attention necessary to satisfactorily watch over the technique of the baths and duration of the rubbing—and the additional difficulty of the time daily occupied by the treatment—limits this means of applying mercury either to patients in hospitals sufficiently supplied with especially trained nurses, or to patients who can afford to visit the great German sanatoria at Aix-la-Chapelle and Wiesbaden, or to the private patient with much time on his hands, and in whom for some particular reason inunction seems preferable.

In short, then, it would appear that treatment with the hypodermic needle is the most suitable method by which to administer mercury in cases of luetic infection, and it is to be hoped that it will not be long before the civil practitioner follows his military brother in the routine treatment of syphilis by intramuscular injection.

Secondly, as to the varied techniques employed.—

a. When the mercury is taken by the mouth.

The administration of hydrargyrum cum creta (grey powder) for two years with some short intervals of rest, is a common and useful method of prescribing mercury. Pulv. ipecac. co. (Dover's powder) may be added, if diarrhœa be at all a prominent symptom, in the ratio of one grain of the powder to each grain of hyd. cum cret.

The following general plan of treatment is taken from "A Manual of Venereal Diseases," by the Officers of the Royal Army Medical Corps, and should be found useful as a model.

The preparation used as a standard is a pill containing one grain of mercury.

Plan of Treatment by 1 gr. Hg. Pills.	Months.	Pills.	Grs. Hg.
First Course.			
1 month, taking 6 pills a day	1	180	60
3 days' rest	—	—	—
1 month, taking 4 pills a day	1	120	40
7 days' rest	—	—	—
1 month, taking 3 pills a day	1	90	30
1 month's rest	1	—	—
Second Course.			
3 months, taking 3 pills a day	3	270	90
1 month's rest	1	—	—
Third Course.			
3 months, taking 2 pills a day	3	180	60
Interval of 1 month	1	—	—
Fourth Course.			
3 months, taking 1 pill a day	3	90	30
3 months' rest	3	—	—
Fifth Course.			
3 months, taking 1 pill a day	3	90	30
Total ...	21	1,020	340

The patient should be seen once a week, and especial care taken of the buccal mucous membrane.

After the third, fourth, and fifth course, a short course of potassium iodide, ten to fifteen grains daily, may be administered with advantage.

At Guy's Hospital the routine is to give the mercury in the form of a mixture, combined with a bitter stomachic (the mistura hydrargyri of the G.H.P.—℞ *liq. hydrarg. perchlor.* ʒ i.; *inf. quassiæ* ad. ℥ i.). This is prescribed for two years, the patient being seen frequently, and the treatment modified to suit the individual case.

Other preparations of mercury which may be administered are the blue pill (two grains t.d.s.), mercurous tannate (half a grain t.d.s.), and the green iodide of mercury, so extolled by the French physicians, and which "often succeeds when other preparations have failed." (Hale White.[12])

b. (i.) *When intramuscular injection is practised.*

The syringe should be of all glass, and the needle of irido-platinum, for this material is not eroded by mercury, and hence there should be no leakage of the cream injected, forming the obnoxious subcutaneous node sometimes heard of. Steel needles and the seam-solder of platinum needles are apt to become eroded; moreover, the former sometimes break off. The best way of sterilizing the needle prior to injection is by immersion in hot olive oil, for the oil facilitates the needle's introduction, and has not the same blunting effect as boiling water, nor the possible corrosive action of chemical disinfectants. Moreover, such a high temperacan be attained (160° C.) as to insure the instantaneous sterilization of any surface brought in contact with it. A useful practical method of roughly estimating two temperatures of the heated oil, is by placing a bread-crumb on the surface of the fluid; at 100° C. the crumb "steams," whilst at 160° C. the crumb commences to "char."

The site chosen for injection is usually the upper gluteal region, at least a quarter of an inch distant from a previous injection mark. The patient is best placed in a stooping position. The site should be well cleansed with some antiseptic (methylated spirit), and the drop of cream which exudes from the needle should be removed by dipping the needle-tip into the hot oil before injection. If this drop be not removed, pain may be felt. The needle itself should be sharply introduced, but the actual injection should be performed slowly, in order that a displacement of muscle fibres may take place, rather than their rupture.

The needle should also be rapidly withdrawn to prevent the escape of cream from the muscle along the injection tract. The needle should now be thoroughly cleansed, especial care being taken to remove the mercury. There is no need for a dressing.

The next question to decide is—what form of mercury is it advisable to introduce into the body by injection?

12. Materia Medica, p. 211.

Our choice rests between the soluble and insoluble salts of mercury, and metallic mercury itself.

The advantages of the soluble salts rest in the fact that the solution of the salt can be readily dispensed anywhere, and can be injected subcutaneously in any part of the body without a special needle and syringe. Moreover, the body can be at once placed in any sate of mercurialism that the surgeon may desire, which state may be increased or decreased by giving or withholding another hypodermic injection after some hours, according as the clinical picture subsequent to the first injection dictates.

The administration may be governed, in fact, just as easily as a hypodermic of strychnine or morphia.

But, on the other hand, the quantity of mercury which can be introduced at one injection is very limited, owing to the rapid diffusion and high toxicity of the soluble salt employed. Hence the necessity for repeated injections, which are in fact required as often as every other day. Moreover, the soluble salts of mercury are irritating and cause some persistent local pain. These objections, then, prohibit the soluble mercurial salts from being employed for routine work.

The following plan of treatment and formulæ for injection, recommended by Major Pollock, R.A.M.C.,[13] are inserted for the sake of comparison with the plan used in the injection of the insoluble salts—which comparison at once demonstrates the superiority of the latter form of treatment—as judged by the standard of the number of injections given and the grains of metallic mercury introduced.

Course for Injection of Sol. Salts.	Months.	Inject'ns.	Grs. Hg.
First Course.			
3 injections a week for 2 weeks	½	6	·87
2 ,, ,, for 6 ,,	1½	12	1·75
Interval, one month	1	—	—
Second Course.			
2 injections a week for 8 weeks	2	16	2·36
Interval, one month	1	—	—
Third and Fourth Course.			
As second	6	32	4·72
Fifth Course.			
2 injections a week for 4 weeks	1	8	1·18
Interval, two months... ...	2	—	—
Sixth, Seventh and Eighth Course.			
As fifth	9	24	3·54
Total	2 yrs.	98	14·42

The formula is—

℞ Hydrarg. perchlor. ... 8 grains.
Sodii chloridi ... ... 4 grains.
Aq. dist ... ... 400 minims.

The dose for each injection is ♏x. = ⅕ gr. $HgCl_2$ = ¼ gr. Hg.

The object in using metallic mercury itself, or the insoluble mercurial salts, is to introduce at one injection such a quantity of mercury as shall officiate as a central supply depôt in the patient's body, and which may be slowly but constantly absorbed by his system. This absorption, under the present system of dosage, continues for a week, at the end of which time the depôt is exhausted, and must be replenished by a second injection.

By this method the number of injections administered are reduced to a minimum, and thus time and inconvenience are saved alike to the surgeon and his patient.

Its one serious objection lay in the fact that should symptoms of mercurialism manifest themselves, the depôt might still contain some potential unabsorbed poison; but the small doses now in vogue make this objection a negligible factor.

The choice between the use of metallic mercury, or of its insoluble salts for cream injection, may be summed up in favour of the former. For the insoluble salts, of which by far the most important is calomel, cause very severe pain at the injection site, which is moreover more likely to become septic than when metallic mercury is used.

There is also a mechanical objection to the use of calomel in a cream, for on account of the higher mollecular weight of this salt (271) as compared with that of metallic mercury (100), there is a greater increased tendency for the separation out of the calomel from the cream to the bottom of the jar, and, therefore, some danger of inaccurate dosage.

Calomel, then, should not be used as a routine cream, but it has this advantage—a rapid and more intense mercurialization of the patient can be effected than with metallic mercury: therefore it might be indicated in those cases in which the patient's symptoms do not respond to injections of metallic mercury, or in which some lesion of the central nervous system evinces itself.

The following is the formula for the calomel cream at present in use at the Military Hospital, Rochester Row.

℞ Calomel ... ... gr. v.
Creo-Camph. ... ... m. xx.
Palmatin Basis up to ... 100 ♏.
Dose ♏ x. (½ gr. Calomel).

Now as to the formula for the injection of metallic mercury, which is, *par excellence*, the best routine method of introducing mercury into the body. Colonel Lambkin at first advised, in the *Journal of the Royal Army Medical Corps* for July, 1906, a formula consisting of a suspension of mercury in anhydrous lanoline and liquefied carbolised paraffin. Later,[14] he advised the injection of the following cream, which is at present in everyday use, under his direction, in the Rochester Row Military Hospital for Venereal Diseases:—

℞ Hydrargyrum ... ... gr. x.
Creo-camph. ... ... ♏xx.
Palmatin basis up to ... ... ♏c.
Dose.—♏x. containing gr. 1 of mercury.

13 M. V. D., p. 147.

14 Lancet, vol. ii., 1907, p. 14.

Creo-camph is a compound of creosote and camphoric acid, and is added to prevent the occurrence of pain sometimes observed after the injection of the old formula.

The following plan of treatment is the one at present followed by Major Ward, R.A.M.C., at the Rochester Row Hospital:—

Course for Injection of Met. Mercury.	Months.	Inject'ns.	Grs. Hg.
First Course.			
6 injections (each weekly) ...	1½	6	6
Interval, 2 months	2	—	—
Second Course.			
4 injections (each fortnightly)	2	4	4
Interval, 4 months	4	—	—
Third Course.			
As second	6	4	4
Fourth Course.			
4 injections (each fortnightly)	2	4	4
6 months' rest	6	—	—
Fifth Course.			
As fourth	2	4	4
Total	25½	22	22

Each injection = ♏x. of the cream = gr. 1 of metallic mercury.

If any fresh signs of syphilis should manifest themselves during the treatment, the intervals may be shortened, provided no signs of mercurialism appear and there be no albuminuria.

That the periods of rest are advisable is shown by the French authorities, who have demonstrated that if more than six weekly injections be given successively the percentage of red blood corpuscles and of hæmoglobin tends to decrease.

Diarrhœa may be produced by mercurial injections, and five-grain cachets of bismuth salicylate are especially recommended for this sequela.[15]

The following instructions issued at present for patients undergoing courses of mercurial injections at the Military Hospital, Rochester Row, are interesting:—

1. Weight to be taken once a week, and recorded.
2. Urine to be tested once a week for albumen.
3. Teeth to be brushed after each meal.
4. The mouth-wash to be used frequently during the day.
5. Allowed to smoke, but as little as possible.
6. Advised to spend as much time as possible in the open air.
7. Each patient to have a hot-air bath at least every second day, in which he will remain not longer than five minutes. These hot-air baths must be given only under the supervision of the Assistant Ward Master. (Signed)

W. H. WARD, Major, R.A.M.C.

15 B. M. J., vol. i., 1907, p. 732.

b. (ii.) *Technique followed when intravenous injection is practised.* The intravenous injection of mercury has been advocated in this country by Mr. Ernest Lane, who sums up its advantages as follows:—The injections are absolutely painless, the digestive tract is not upset, the doses are small, certain of absorption, and easily regulated. The treatment, he says, is perfectly safe with ordinary precautions, and would seem to be especially indicated when it is required to rapidly mercurialize the patient at the earliest possible moment, *e.g.*, in cases of syphilis of the central nervous system.

He advises the injection of twenty minims of a 1 per cent. solution of cyanide of mercury, which should be used daily. Forty-six injections were the largest number given to one patient. If preferred, the same dose of a similar solution of mercuric chloride may be used. In very severe cases, the first two doses may be doubled. Great care must be taken that the injection is intravenous, and not into the subcutaneous tissues, in which case pain, swelling, and bruising will easily result.[16]

The objections to this special variety of treatment as a routine measure are: the fact that diarrhœa is quite often produced, the necessity of daily injections, and thus the constant risk of such serious accidents as thrombosis and pyæmia.

c. The technique followed when mercury is introduced by the skin. This introduction may be brought about (i.) by inunction, (ii.) by calomel vapour baths, or (iii.) by various other mild measures.

(i.) The technique of the treatment by inunction is as follows:—Each patient must possess a change of woollen underwear, which must be worn night and day for a week, and then changed for the second set, whilst the first is being washed.

The following is the formula for each inunction and a general plan of treatment by such inunctions, both abstracted from the Manual of Venereal Diseases above mentioned:—

℞ Ung. hydrarg. gr. xl.
Adipis Lanæ, B.P. gr. xx. } Wrapped in wax paper.

General plan of treatment for a two years' course of inunction:—

Plan of treatment by inunction.	Months.	Inunct'n.	Grs. Hg.
First Course.			
42 daily inunctions	1½	42	840
3 months' rest.	3	—	—
Second Course.			
As first	4½	42	840
Third Course.			
30 daily inunctions	1	30	600
6 months' rest...	6	—	—
Fourth Course.			
30 daily inunctions	1	30	600
6 months' rest...	6	—	—
Fifth Course.			
20 daily inunctions	⅔	20	400
Total	23⅔	164	3,280

16 B. M. J., vol. ii., 1896, p. 1702.

The patient should be seen at frequent intervals.

The following are the instructions at present issued at the Rochester Row Hospital to patients undergoing a course of inunctions:—

1. Weight to be taken once a week, and recorded.
2. Urine to be tested once a week for albumen.
3. Teeth to be brushed after each meal.
4. The mouth-wash to be used frequently during the day.
5. Allowed to smoke, but as little as possible.
6. Advised to spend as much time as possible in the open air.
7. Patients to have a hot bath daily, but must scrub only that part into which the inunction is to be rubbed that day, and must always leave the bath before inunction.
8. The rubbing will be done by the trained orderly. The part into which the mercurial ointment has been rubbed will not be washed again until the time comes to wash that part once more. The rubbing to be done on each part for not less than twenty minutes, in the following order:—1st day, the arms; 2nd day, the chest; 3rd day, the back; 4th day, the thighs; 5th day, the legs; then recommence as on the first day.

(Signed)
W. A. WARD, Major, R.A.M.C.

(ii.) Technique of the treatment by calomel vapour baths.

The absorption of mercury vapour by the skin is obviously not accurately, and hence scientifically, controlled. Its general use is therefore to be deprecated. It may, however, be useful in chronic syphilides, which will not yield to the ordinary methods of mercurial administration, and often rapidly causes a disappearance of the rash in them. Half a drachm of calomel should be fumigated in some appropriately contrived bath which should be partaken of three times a week. Other mercurial treatment should be discontinued during the time the baths are being taken.

(iii.) The introduction of mercury through the skin (or mucous membrane) by other mild measures.

Firstly, there are the various measures of smearing ointment on flannel binders, socks, and bags, included amongst which is the proprietary "merco lint chest bibs," which are made of felt impregnated with mercury.

Secondly, we have the mercurial bath, which is especially indicated in tropical debilitated subjects, who are often afflicted with multiple cutaneous ulcerations.

The bath acts both locally as a wash, and also by absorption. It may be prepared according to the following formulæ:—[17]

℞ Mercurie Chloride	...	60–180 grains.
Ammonium Chloride	...	1–3 drachms.
Water at 100° F. at	...	30 gallons.

The patient may remain in the bath from ten minutes up to half an hour. Other methods of mercurial administration should be possibly postponed until the cutaneous lesions have healed and the baths are discontinued.

Thirdly, Audry[18] has recently pointed out the advantage of administering metallic mercury by the rectum, in the form of cocao-butter suppositories, containing 40 per cent. of grey oil. One of these is inserted every day for a month, after which course a few days' rest is allowed.

Boyreau[19] has still more recently, in 1908, treated some eighty cases at the Toulouse Hospital in this way, and he rightly claims for this method that it is not apt to upset the gastro-intestinal tract, nor has it the objectionable technique of injections, nor the unpleasantness of inunctions. As a mild cure, he says the treatment is perfectly satisfactory in the ordinary case of benign syphilis.

In this connection it is interesting to read Thomas Bryant's words in his "Practice of Surgery," published in 1884:[20]—

"During the last eight or ten years," he says, "I have been using the mercurial suppository twice daily, and have been greatly satisfied with its action. The drug acts as well thus as by the mouth, and in no way interferes with the digestion or the functions of the abdominal viscera; indeed, I am disposed to think it is by far the best mode of administering mercury."

It would seem, then, as though this method of treatment has not received the attention which it deserves, and, at the present day, it would appear that it might be a valuable method in the treatment of the congenital syphilis of infants.

(To be continued.)

17 M. V. D., p. 166.

18 "Annals de Dermat et Sy." March, 1906.

19. Journal des Mal. Cut. et Sy., March, 1908, and The Practitioner, October, 1908, p. 591.

20. 4th Edition, vol. i., p. 142.

Pass List.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, April, 1909.—Examined for the Membership: F. G. Hopkins, M.A. Cantab, M.B. Lond. Elected Fellow of the College: R. O. Moon, M.D. Oxon.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Licence in Dental Surgery. First Professional Examination, May, 1909. Mechanical Dentistry and Dental Metallurgy: R. R. Adams, E. R. Bailey, J. Benson, A. F. Camp, R. N. Curnow, G. W. E. Holloway, S. Lawson, H. L. Meyer, J. H. Rhodes, C. E. Rice, A. T. Rycroft, P. B. Stoner, E. S. Tait. Mechanical Dentistry only: H. C. Corke, H. O. Dumayne, J. E. R. Evans, F. A. Jaques, W. S. Ollis, C. A. Pollard, G. E. Rowstron, J. H. Wiles. Dental Metallurgy only: H. J. Burch, F. S. Cooper, H. Harrison, A. E. F. Peaty, A. E. V. Spill, H. Wotton, E. O. Yerbury.

Sport.

Cricket.

On Thursday, May 6th, we held a Trial Game, and, although sufficient Freshmen put their names down for the practice, only about half a dozen of them put in an appearance at Honor Oak. This is not the sort of keenness that is going to win us the cup ties this year, and in future we trust that as many as possible will turn up to net practice in the evenings.

GUY'S v. BECKENHAM.

Our season opened with the match against Beckenham on Saturday, May 1st. As usual, great difficulty was found in raising a team for this match, few men having returned from the vacation. The weather was extremely unfavourable for cricket, and under the circumstances it was not surprising that we should lose our first encounter of the season.

GUY'S.

C. H. Medlock, c Thoms, b Hadley	11
M. M. Munden, c Hilder, b Stenning	4
R. Montgomery, st Ramsey, b Stenning	33
A. H. Birks, c Baker, b Stenning	7
W. C. Miller, c Lewis, b Stenning	0
F. C. Hunôt, b Stevens	14
F. Kahlenberg, c Baker, b Hilder	2
H. C. Rook, c Thoms, b Stevens	1
B. F. Sampson, b Hilder	2
P. S. Humm, not out	10
Extras	6
Total	90

BECKENHAM.

C. G. Hill, b Humm	4
A. M. Lewis, c Birks, b Kahlenberg	17
H. S. Hilder, lbw, b Kahlenberg	1
H. L. Baker, c Miller, b Kahlenberg	14
R. D. Craig, b Miller	61
P. G. Hurst, c Sampson, b Kahlenberg	10
J. G. Stevens, st Montgomery, b Humm	6
F. B. Ramsey, b Miller	15
J. R. Stenning, not out	25
F. G. Thoms, b Miller	3
W. R. Hadley, b Miller	14
Extras	13
Total	183

GUY'S v. STOICS.

Played at Honor Oak, Saturday, May 8th, on a hard and very fast wicket, resulting in a win for Guy's after a close game.

GUY'S.

C. H. Medlock, c Sutton, b Haywood	9
M. M. Munden, b Haywood	1
R. Montgomery, b Snell	6
A. H. Birks, lbw, b Haywood	25
G. Andrew, b White	50
F. D. Saner, b Gardom	2
W. C. Miller, st Robertson, b Hollander	13
F. Kahlenberg, ct Gadsdon, b White	18
P. S. Humm, b Haywood	0
C. E. Rice, b Haywood	5
G. Rhys Evans, not out	0
Extras	23
Total	152

STOICS.

D. Robertson, b Miller	21
G. J. M. Hardy, c Kahlenberg, b Rice	12
A. H. S. Hollender, c Munden, b Kahlenberg	27
J. H Gadsdon, b Kahlenberg	6
W. D. Gardom, b Kahlenberg	0
C. S. Richardson, b Rice	0
C. Haywood, c Birks, b Kahlenberg	9
F. A. Sutton, b Kahlenberg	0
O. C. White, c Andrew, b Kahlenberg	18
E. S. Snell, not out	12
S. E. Walmisley, b Kahlenberg	5
Extras	16
Total	126

Golfing Society.

In connection with the United Hospitals Golfing Society, which was formed at the end of last year, the first Inter-Hospital Competition is now in progress. This competition is to be an annual affair. Each hospital is represented by nine players; the score is by matches played to a finish. The draw for 1909 is as follows:—

Guy's, bye ... ...
St. George's ... ...
St. Thomas's ... ...
St. Bartholomew's ... ...
London ... ...
Middlesex, bye ... ...

In the second round, Guy's were defeated by St. Thomas's by 7 matches to 2. The match was played on April 21st, at Mid-Surrey.

Guy's.		St. Thomas's.	
L. Bromley	0	G. R. Girdlestone, 2 & 1	1
E. A. Collins	0	W. G. Howarth, 4 & 3	1
H. C. Cameron	0	W. Tindal Atkinson, 5 & 4	1
W. S. Kidd, 1 up	1	W. D. Corbett	0
J. M. Jarvie	0	W. D. Ross, 4 & 3	1
H. L. Duke	0	W. R. Bristow, 3 & 2	1
F. D. Saner, 5 & 4	1	W. Shipton	0
H. B. Carlyll	0	H. E. Humphreys, 4 & 3	1
M. M. Earle	0	C. M. Page, 2 up	1
	2		7

Lawn Tennis.

The prospects for this season, which commenced on May 1st, are good, and if the present amount of practice and keenness shown is maintained, we ought to retain the cups for another year. Only four of last year's 1st VI. will be available, F. J. Cutler and M. M. Earle, we regret to say, being out of their respective years.

We have a good list of fixtures, including twenty-three 1st VI. and nineteen 2nd VI., and have entered for both the Surrey Senior and Junior County Competitions.

In the trials, Price Harris showed promising form, Griffiths, Barber, Smyth and Farrington being also seen to advantage.

FIXTURES FOR 1909.

FIRST VI.

May.			
Sat. 15	Caius College, Cambridge		Away
Wed. 19	Mr. J. Ganzoni's VI.		Home
Sat. 22	Kent		Home
Wed. 26	Connaught		Home
Sat. 29	Dulwich Farm		Home
June.			
Sat. 5	Surbiton "A"		Home
Wed. 9	Blackheath "A"		Away
Sat. 12	Balliol College, Oxford		Away
Wed. 16	Mr. W. J. Wilson's VI.		Home
Sat. 19	Gipsy "A"		Home
Sat. 26	Finchley		Home
Wed. 30	Gipsy "A"		Away
July.			
Sat. 3	Boundaries		Away
Wed. 7	Sydenham		Home
Sat. 10	Surbiton "A"		Away
Wed. 14	Connaught		Away
Sat. 17	Dulwich Farm		Away
Wed. 21	Boundaries		Home
Sat. 24	United Services		Away
Wed. 28	Sydenham		Away
Sat. 31	Kent		Away

SECOND VI.

May.			
Sat. 15	Woking (Surrey Junior Cup)	...	Away
Sat. 22	Wimbledon "A"		Away
Sat. 29	St. Thomas's "A"		Home
June.			
Wed. 2	Sidcup "A"		Home
Sat. 5	Gipsy "B"		Away
Wed. 9	Connaught "A"		Home
Sat. 12	Hertford College, Oxford		Away
Wed. 16	Sidcup "A"		Away
Sat. 19	Connaught "A"		Away
Sat. 26	Highgate "A"		Away
Wed. 30	St. Bart.'s "A"		Home
July.			
Sat. 3	Watford		Home
Sat. 10	Highgate "A"...		Home
Wed. 14	St. Bart.'s "A"		Away
Sat. 17	St. Thomas's "A"		Away
Sat. 24	Wimbledon "A"		Home
Wed. 28	Royal Dental Hospital		Home
Sat. 31	Harold "A"		Home

GUY'S 1ST VI. v. BLACKHEATH "A."

This match, our first of the season, took place at Honor Oak Park on Wednesday, May 5th, and resulted in a win for Blackheath by five matches to three, one being left unfinished. H. Chapple was unable to play. Result:—

H. Sharpe and A. S. Roe beat C. D. Beater and Capt. J. E. F. D'Apice, 6–3, 6–4; lost to S. F. Card and L. F. Cass, 2–6, 4–6; beat R. C. Mott and A. S. St. John, 6–3, 8–6.

R. Curle and L. Price Harris lost to Beater and D'Apice, 4–6, 1–6; lost to Card and Cass, 3–6, 3–6; drew with Mott and St. John, 7–5, 2–2.

G. C. Covell and G. H. Hunt lost to Beater and D'Apice, 2–6, 5–7; lost to Card and Cass, 5–7, 4–6; beat Mott and St. John, 7–5, 7–5.

GUY'S 1ST VI. v. LYONSDOWN.

This match took place at Honor Oak Park on Saturday, May 8th, and resulted in a win for the Hospital by five matches to four. H. Chapple was again unable to play. Result:—

H. Sharpe and A. S. Roe beat N. M. Adams and S. C. Jukes, 6–0, 6–3; beat R. W. Hawke and R. M. K. Turnbull, 6–8, 6–3, 6–4; beat E. H. Jukes and W. Drummond, 6–3, 6–2.

R. Curle and C. Price Harris lost to Adams and Jukes, 3–6, 2–6; lost to Hawke and Turnbull, 4–6, 1–6; lost to Jukes and Drummond, 5–7, 3–6.

G. C. Covell and G. H. Hunt beat Adams and Jukes, 2–6, 6–3, 6–4; beat Hawke and Turnbull, 6–4, 6–4; lost to Jukes and Drummond, 2–6, 3–6.

Inter-Hospital Boxing, Fencing, and Gymnastics.

These contests took place on Wednesday evening, May 12th, in the gymnasium of the East London College, kindly lent by the committee of that institution. There was a very good attendance, in spite of the short notice that was given, and we are glad to say that Guy's supporters were numerous and enthusiastic. It is to be regretted that they were not given more opportunity of displaying their enthusiasm than was the case, for the heavy-weight boxing and the gymnastics were the only events that fell to our share. London, with two boxing and three fencing events, retained the Cup for another year.

The boxing did not, perhaps, reach a very high standard in point of the skill displayed, but what was lost in science was more than compensated for in determination and pluck. Rarely, indeed, in any competition, can so many "knock-outs" have been seen, for no less than five bouts, including all the finals, terminated in this manner.

In the gymnastics, the Guy's pair, L. Bromley and J. R. Barrow-Clough, scored a well-deserved victory. Of the former it is hardly necessary to speak, since he is well-known to all Guy's men as a gymnast of altogether exceptional merit. For his partner, Barrow-Clough, it would be difficult to say too much. Since last October

he has trained steadily and continuously with the object of winning this competition for Guy's, and the success achieved on Wednesday by his neat and finished performance will no doubt be a source of great gratification to him. We shall look forward to seeing him take a prominent part in this contest for some years to come, and trust that a partner may always be forthcoming who will show as much energy and enthusiam in his preparation.

The fencing events began with the foils, the three competitors, S. H. Scott (London), G. F. Haycraft (Guy's), and C. B. Heald (Bart.'s), fighting on the pool system. Scott, who had an enormous advantage over Haycraft in the matter of reach, defeated both his opponents, and won the event, Haycraft defeating Heald easily in spite of the difference in stature.

In the epée combat there were only two entries, and Scott again defeated Haycraft in a close affair. In the first bout of the sabre pool, R. C. Oram (Guy's), who, at the outset, appeared likely to suffer the fate of the sheep at our recent Assault-at-Arms, easily defeated the gigantic, but unscientific, Bart.'s man, Heald. The second bout between Scott and Oram produced the closest fight of the evening, a tie resulting after four minutes' sword-play. An extra minute was ordered, and eventually Scott's greater experience, combined with his advantage in reach, gained him the victory.

The boxing finals then followed.

In the feather-weights A. S. Morgan (Guy's), who pluckily undertook to box at two days' notice, though quite untrained, made a good show for a round and a half against a formidable opponent in F. Richardson (London). Eventually a succession of blows on the jaw sent the Guy's man down, and he was counted out.

The light-weight final saw the London representative suffer the same fate at the hands of Hodge (George's).

In the middle-weights, E. C. Clouston (London), who has already a record of three successive wins in this competition, proved too much for H. B. Neley (Guy's), who is quite a novice, and was returned the winner at the end of the first round, Neley being unable to rise after being sent down three times.

The last event helped to somewhat revive the enthusiasm of the Guy's supporters, Stranack, after having rather the worst of the first round, knocking Foote clean through the ropes in the middle of the second. The London man rose, but was promptly sent down again, and, after the third fall, was counted out, leaving Guy's with a solitary win in the boxing, as last year.

BOOKS RECEIVED.—On some Functions of the Projectile from a Surgical Aspect. By Fleet Surgeon Beadnell, R.N.; Murrell's Aids to Forensic Medicine; Hunter's Severest Anæmias, vol. i.; Proceedings of the Royal Society of Medicine, part 6, vol. ii.; Minett's Differential Diagnosis of Bacteria; Tyson's Notes and Thoughts from Practice.

Preparations Received.

Diamalt.

We have received a sample of extract of malt, called by the registered name Diamalt, from the makers, The British Diamalt Co.

Two of the most important factors in judging the character of an extract of malt are the amount of nutritive carbohydrates and the power of converting starch into soluble carbohydrates. In the former respect this extract leaves nothing to be desired, and in the latter it is one of the most active preparations we have yet examined. According to our experiments it is about four times as active as the ordinary malt extracts sold in bulk to Hospitals. Moreover, it is quite a palatable preparation.

Hanneman's Medicated Biscuits.

A story is told of a certain old Colonel who had tested the mixtures of many physicians, and on glancing at yet another new prescription, exclaimed; "Ah! my old friend—bicarbonate of soda." These biscuits, which are made by Messrs. L. Hanneman & Son, 1, Park Parade, Harlesden, N.W., would have been welcomed by the gallant and dyspeptic gentleman as a change from his eternal bicarbonate of soda. The biscuits are crisp and palatable and slightly sweet, and have a distinctly antacid effect. One taken after meals is recommended for acid dyspepsia and heartburn; three or four taken at night or upon rising act as a mild aperient.

Births.

CROFTS.—On April 17th, at 26, King's Road, Windsor, the wife of A. Douglas Crofts, L.R.C.P. Lond., M.R.C.S., of a daughter.

HANDLEY.—On May 2nd, at 12, New Cavendish Street, W., to Mr. and Mrs. W. Sampson Handley, a son.

Marriage.

PARROTT—FIRMINGER.—On April 29th, at All Saints Church, Upper Norwood, Hugh McDowall Parrott, M.B., B.S. Lond., son of Dr. J. E. Parrott, of Dulwich, to Ruth, daughter of B. Firminger, late of West Park, Eltham.

Death.

MARTIN.—On May 7th, at Westfield, Surbiton, Henry Arthur Martin, M.D., late Army Medical Department, in his 71st year.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

May.

Sat. 29. 1st XI. v. Bexley Asylum (Away).
2nd XI. v. Hampstead Nomads (Home).
1st VI. v. Dulwich Farm (Home).
2nd VI. v. St. Thomas' "A" (Home).

Mon. 31. Bank Holiday.
1st XI. v. Crofton Park (Home).

June.

Wed. 2. 1st XI. v. Tunbridge Wells (Away).
2nd VI. v. Sidcup "A" (Home).

Thur. 3. Messrs. Dunn and Rowlands' take-in (Messrs. Lobb and Plumptre).

Sat. 5. Guy's Athletic Sports (2nd Meeting), 2.30 p.m.
Residents' Smoking Concert, 8.15 p.m.
1st VI. v. Surbiton "A" (Home).
2nd VI. v. Gipsy "B" (Away).

Mon. 7. Clinical Lecture by Mr. Eason (Ophthalmology), 1.15 p.m.

Wed. 9. 1st XI. v. Granville, Lee (Away).
2nd XI. v. White House (Home).
1st VI. v. Blackheath "A" (Away).
2nd VI. v. Connaught "A" (Home).

Thur. 10. Sir Alfred Fripp and Mr. Turner's take-in (Messrs. Price and Crook).
1st XI. v. London County (Away).

Fri. 11. University of London Union Sports.
Guy's Colonial Dinner, Trocadero Restaurant.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; The Nursing Times; Broad Way; South African Medical Record; M.S. Journal; Manchester Medical Students' Gazette; New York State Journal of Medicine; Prince Alfred Hospital Gazette.

Passim.

THE Annual Report of the Hospital, which has just been issued, is of considerable interest, both to outsiders and to those of us who are connected with the place: to the former, because it is the only official publication representing the year's work of the hospital which is in the hands of the general public; to the latter, because it is so easy, through daily familiarity with the details of the hospital work, to lose sight of the broader principles of policy and administration by which we are controlled. We hope in our next issue to give some extended account of the finances of the hospital during the past year, and to comment on the future developments which are likely to take place.

IN our last issue we referred to a scheme which is afoot to emulate the achievements of the famous Disguysed Minstrels by the production of a Gilbert and Sullivan opera, and its performance in aid of the hospital funds. The production of one of these operas was suggested some time ago in these columns, and we shall be very glad, therefore, to see the scheme successfully launched, as we have no doubt it will be. A preliminary venture, as we hinted,

will be a concert, and the arrangements for this are now actively progressing. The conert will probably be held early in July in one of the West-end concert halls, and the programme will be mainly provided by Guy's performers, with the assistance, however, of several well-known professional *artistes*. We can promise a concert of exceptional interest. Further particulars will be duly announced in these columns.

As we go to press, the preliminary heats of our Athletic Sports are being decided at Honor Oak Park in most propitious weather. The finals and other events will take place on Saturday next, June 5th.

ANOTHER forthcoming athletic meeting is the University of London Union Sports, which are to be held at the University College ground at Perivale, on Friday, June 11th. In these sports last year our men were successful in winning the high jump, hurdles, hammer, three mile, relay race, and the tug-of-war, and there seems no reason why we should not be equally fortunate this year. All entries should be made on or before June 4th to the Hon. Sec., Mr. N. E. Farr, or to the Guy's representative, Mr. H. N. Eccles.

THE Smoking Concert held during March was such a success that the present Residents have decided to hold a similar concert next Saturday evening, June 5th, at 8.15 p.m. Tickets, as before, are a shilling each, and may be obtained from any of the Residents. We do not doubt that a programme as excellent as the last will be provided, and anyone who was present on that occasion will probably need little encouragement to turn up again, especially as we understand Sir Alfred Fripp is to occupy the chair next Saturday.

THE Guy's Colonial Dinner is always a pleasant and enjoyable function, which helps to foster a spirit of kinship among our companions who come from the outlying parts of the Empire. Since last year's dinner the incident which has, perhaps, more than anything else, demonstrated the loyalty of our Colonies to the Mother Country—the gifts of "Dreadnoughts" to the Empire's Navy—has occurred. Many Colonial visitors are in London, the Imperial International Exhibition is in full swing, and the Australians are in our midst once again; the time is, therefore, most opportune for our Annual Colonial Dinner, which will be held at the Trocadero Restaurant on Friday, June 11th. Tickets may be obtained from either of the Hon. Secretaries, Messrs. L. B. Stringer and H. Hoby.

THE externs are again, this year, for the month of June, conspicuous by their absence. This was also the case, it will be remembered, two years ago, and a portrait of the externs for the month was then published in "Lighter Vein," in the form of a blank space. Some extra inducements were, we believe, at that time held out to men to undertake the work, which otherwise falls somewhat heavily on the Charities and on the nurses on the District, but they have not at present been repeated this year. We think, however, that the offer of the long-mooted board and lodging might have some effect in bringing potential externs—in the vulgar expression—"up to the scratch."

IT is announced that Mr. John Beresford Leathes, Lecturer on Physiology at St. Thomas's Hospital Medical School, has been appointed Professor of Chemical Pathology in the Toronto University. According to Reuter's telegram, "the authorities of the University of Toronto express great pleasure at the acceptance by Dr. Leathes, of London, of the Chair of Chemical Pathology at the University. President Falconer regards Dr. Leathes as one of the most eminent of the younger men of science in the medical world." Coming to us from Oxford, Mr. Leathes had a brilliant career here, graduating M.B., B.Ch. Oxon., in 1893, and obtaining the F.R.C.S. a year later. He held the Beaney Scholarship for two years, and also studied at Berne and Strassburg. He has since held a teaching post at the St. Thomas's Medical School, and has also been in charge of the Laboratory for Pathological Chemistry at the Lister Institute. He published a volume of valuable lectures, entitled "Problems of Animal

Metabolism," in 1906. Mr. Leathes will doubtless add to his already brilliant reputation in his new capacity as a professor in the New World.

Mr. R. A. Chisholm has been appointed the first Greville Student. This Studentship was founded by the Hon. Mrs. Greville, during 1908, "for original investigation in connection with the subject of cancer."

The National Association for the Prevention of Consumption and other Forms of Tuberculosis is conducting its propaganda largely by educational exhibitions, such as those which have been so successful in America, and in Lady Aberdeen's campaign in Ireland. The exhibitions are designed to illustrate the evils arising from tuberculosis, and how they may be prevented. A start is to be made in the East-end of London, and the exhibition will be opened at the Whitechapel Art Gallery on Wednesday next, June 2nd, by the Rt. Hon. John Burns, M.P., President of the Local Government Board. It is intended that the exhibition shall afterwards visit the poorer districts of London in turn, and then make an extended tour of the provincial cities and towns. Two features of the scheme which have our heartiest approbation are that no charge for admission will anywhere be made, and that the movement will be entirely free from commercial enterprise and advertisement of any sort. We are convinced that it is only possible successfully to combat a widespread disease like tuberculosis by educating the people and by showing them how it can be prevented and cured.

From the Gazette's Special Pathologist.

C.R.N., H.M.S. *Drake*.—Reaction, acid; specific gravity, 1014; albumen, a considerable amount; blood, vide infra; sugar, absent. *Microscopical examination of the centrifugalised deposit.*—The deposit contains small numbers of red blood discs, granular renal cells and well-defined granular and hyaline tube casts, also a slight excess of leucocytes. No crystals or further abnormalities are noted. PATHOLOGIST.

Guy's Hospital Ladies' Association.

H.R.H. Princess Christian of Schleswig-Holstein presided at the Fourteenth Annual Meeting of the above Association, which was held in the Governors' Court Room on May 18th, and was well attended. Among the ladies present were:—Countess of Bective, Countess of Kerry, Countess of Selkirk, Hon. Mrs. Henry Molyneux, Hon. Mrs. A. Campbell, Hon. Mrs. K. Campbell, Mrs. Lucas, Lady Perry, Lady Fripp, Mrs. Hale White, Mrs. Frederick Taylor, Mrs. Benyon, Mrs. Bonsor, Mrs. Symonds, Viscountess Goschen, Mrs. Charles Barclay, and Miss Swift (the Matron).

The statement of accounts for the past year having been presented, the Countess of Bective moved their adoption, and spoke of the satisfactory financial condition of the Association, but urged that no efforts must be relaxed if its usefulness was to go on increasing, as they hoped. The sum of £10, saved through the kindness of local secretaries, did not seem very much, but it represented a large amount of help in the saving of postage and other small items.

Viscountess Goschen seconded the adoption of the accounts.

The Hon. Secretary, Mrs. Lauriston Shaw, then read the Annual Report of the Committee, and gave an account of a very satisfactory year's work, as follows:—

The Committee have much pleasure in giving a short account of the thirteenth year of the Association's work. They record with much satisfaction that the Association still continues to grow, the total number of members being 1,416 this year, as compared with 1,331 in the previous year. The main body has lost several members by death, among them Lady Gull, who had been a supporter of the Association since its inception, several members have been transferred to local branches, and some others have resigned, making a total loss of 21.

Twenty-two branches were mentioned in the last Report, and of these most are still in a thriving condition. A new branch has just been inaugurated at Eastbourne, under the secretaryship of Mrs. Astley Roberts, who for many years has taken a deep personal interest in the Association. The Dover Branch will be abandoned after this year, as Mrs. Osborne finds it impossible to keep it on. The Committee much regret the loss of this help, which has been of great value ever since the branches were started. They also regret the resignation of Mrs. Edwards, the founder and energetic Secretary of the Woodford Branch, to whom they owe most grateful thanks for her unwearied exertions on behalf of the Association. Fortunately this branch will still continue under the guidance of Mrs. Francis Lewis as Secretary, and of Miss Warner and Miss Cook as joint Treasurers. Among so much excellent work done by the local branches, the Committee hardly like to single out special instances, but without in any way depreciating the results attained by other branches, they feel they must

just mention the satisfactory financial result achieved by Dulwich, which sends the splendid sum of £65.

They congratulate many branches—Streatham, West Herts, Berkshire and Denmark Hill, among others, on having increased their membership.

Several of the branches now work for definite wards.

The Lee and Blackheath Branch continues to specialize by making a large number of boys' garments, always greatly needed, and the Clapham Branch contributes, among other things, blouses and skirts for women.

The working parties in London have met regularly during the winter months, on alternate Wednesday and Friday afternoons. The duty of cutting out and supervising the work has been undertaken, for this past season, by the following ladies, to whom many thanks are due: Mrs. Hale White, Mrs. Symonds, Miss Browne, Mrs. Poolman, Mrs. French, Miss Greenway, Mrs. Rowlands, and Mrs. Craig. In addition, Mrs. Craig is acting as Secretary of the work sub-committee, and any communication with respect to date or place of meeting should, in future, be addressed to her. She has also kindly undertaken to collect the finished work at the end of the season.

For the benefit of new members, the Committee wish once again to repeat that the garments contributed are used for two distinct purposes. These are for the use of patients in the wards, in which case the garments remain the property of the Hospital, or to equip patients going from the hospital or to Convalescent Homes. In the latter case, the garments are necessarily given to the patient. It is interesting to notice in how many instances the patients would not be able to take advantage of convalescent treatment without the help which the Ladies' Association is thus able to give.

The Sister in charge of the Clothes Cupboard writes: "All we have helped have been very poor. It is the same tale in every case, father or husband out of work, or, in the case of a man, illness has prevented his working. Then the clothes are sold from sheer necessity, and there is no money to buy others when needed."

The visiting of patients by members of the Association is still continued, and those ladies who have taken up this branch of the work are very devoted to it, and in many cases take a personal interest in the welfare of the patients. One of the visitors, quite recently, has drawn the Committee's attention to the hardship entailed upon patients who are dangerously ill, owing to their friends living far away and not being able to afford to visit them as often as they wished. She suggested that possibly the railway companies might be willing to give cheap tickets to *bona fide* friends of deserving patients. The Committee have approached the Governors of the Hospital on the subject, but no decision has as yet been arrived at.

With regard to the Junior Members' Branch, Mrs. Ormond writes:—The Junior Members' Branch now numbers over 150, of which 131 belong to the London Branch. The London Branch has 20 new members, but we have lost several of our old members who have reached the age limit.

The total subscriptions realised the sum of £15 5s., but we are still a long way short of the £25 which we hope ultimately to be able to give annually, so that the Junior Branch may entirely support a cot in one of the wards. A good many members have sent us smaller subscriptions this year than formerly, which is disappointing, as it makes our total very little more than last year, notwithstanding the increase in membership.

The Committee recommend that this sum be devoted to the support of a cot, and they very much hope that next year the requisite £25 may be raised so that one definite cot may be assigned to the Association.

They wish to acknowledge the valuable help given by Mrs. Molyneux to the junior members, who during the past year has been the means of enrolling a large number of new members.

The financial position of the Association is still very satisfactory. The amount contributed through the London Committee is practically the same as last year, but the branch Committees send nearly £20 more. The amount spent on postage is less than last year, although the number of members is greater. This is due to the fact that each local secretary this year most kindly undertook to distribute the reports for her branch, and a large number were able in consequence to be delivered by hand. The Committee again recommend that £300 be given to the Treasurer of the Hospital for the support of six beds in the Maternity Ward. They hope next year to be able to extend their help, and this will be possible if some additional subscribers can be secured. They earnestly appeal, therefore, for further help, and with all the greater confidence because a large hospital like Guy's is not a purely local institution. That such is not the case can easily be proved by reference to the districts supplying patients for treatment, which will be found to include almost every part of the United Kingdom. In addition to this, Guy's trains nurses and medical men who work in every part of the Empire. It is, therefore, for the benefit of the whole nation that such institutions should be enabled to perform their function in the most efficient manner; the Committee consequently feels justified in appealing for further support from all quarters. They would again ask members to consider the possibility of interesting one or more of their friends in the Association, as it is only by means of these personal efforts that the Association can maintain its present position and continue to increase. In conclusion, they desire once again to thank all the members who by their generous help have contributed to the success of the Association. In particular they wish to mention the local secretaries, whose untiring efforts on behalf of the work have done so much for its welfare.

They hope that the present branches may flourish for many years, and that additional ones may be added to the number from time to time. In this way they feel sure that the steady growth of the Association, which has developed year by year without a break since its commencement in 1895, will be continued, and the help it is able to render become still more effectual.

Mrs. Benyon, moving the adoption of the report, said they were very anxious to support eight beds, and would like to see a large increase in the number of junior members. The custom of branches working for one or more definite wards was gaining favour, and was, she thought, very desirable; it added greatly to the interest of the work, as, also, did the personal visits of ladies to the wards. Mrs. Benyon, expressed on behalf of the Association, the deep debt of gratitude which it owed to its Hon. Secretary, Mrs. Lauriston Shaw, and to its Hon. Treasurer, Mrs. Pye-Smith, whose unavoidable absence they all regretted.

Miss Swift (the Matron) seconded the adoption of the report, and, on behalf of the nursing staff, thanked the Association for its continued efforts. The garments which were provided enabled patients to go to convalescent homes, who could not otherwise do so, and in this way a larger number of patients could be accommodated in the hospital itself during the year.

Mrs. Charles Barclay then moved, and Mrs. Blatherwick seconded, the election of Mrs. Cunliffe and Miss Swift to fill the vacancies on the Committee. This was carried with acclamation.

The Hon. Mrs. Henry Molyneux moved that the following clause should be inserted in Rule 3:—"Junior Members shall be permitted to contribute a second shilling in lieu of a toy, or garment, or book."

Mrs. Ormond, Secretary of the Junior Members, seconded the proposition, and explained why it was considered desirable to adopt it. The junior members were now over one hundred and fifty in number, and the Committee desired still further to increase that number. They could imagine, in years to come, grey-haired old people, who are now junior members of the Association, disputing as to their precedence in subscribing to Guy's.

The proposition was then put to the meeting and carried.

Mr. Cosmo Bonsor, the Treasurer of the Hospital, in proposing a vote of thanks to H.R.H. Princess Christian for presiding, compared his position on that day with the first occasion when he attended their meeting, and was not allowed in the room. Man was beginning to take his proper place in society, however. Mr. Bonsor spoke of the valuable support which the Royal Family had always given to the Hospital. The King became its President at a time of great financial difficulty, and had initiated the Re-endowment Fund, which would eventually bring Guy's endowment up to the efficient condition which its founder had always intended it should maintain. Then the Prince of Wales, who was now their President, was always active, and at the same time critical, in the interests of the Hospital. Lastly, H.R.H. Princess Christian, as President of the Ladies' Association, had identified herself with the great work of the Charity.

Mr. Bonsor then went on to give an account of some of the details of the hospital administration, especially of the staff under the control of the Matron, who with her great business capacity and economy had completely re-organised the system of nursing training here, and made it the envy of other hospitals. The speaker gave some account of the training which the nurses went through. An old friend of his, whose daughter was very anxious to enter Guy's, was very averse to the plan. However, she got her own way, and entered the training school. Meeting her father, he (Mr. Bonsor) asked how she was getting on, "Oh, excellently," was the reply, "she's just learning the duties of a kitchen-maid!" The daughter did not complete her training, but had established a successful hospital for cats!

In spite of the nurses' arduous training, however, the ladies would find, on going round the wards after the meeting, that they looked pretty well, and all that could be done to make their lives as light and pleasant and agreeable as possible was done by the Matron.

One serious question he must raise, in conclusion. He did not think that the nursing profession was properly treated by the people of this country, and the Press especially never ceased to defame it, rather than to pay it proper tribute. Nursing had ceased to be merely a vocation, and had become an honourable profession, and the time had now arrived when Society and the State should recognise it as such.

The Countess of Selkirk, seconding the vote of thanks, said that Mr. Bonsor could not speak too highly of Her Royal Highness' warm personal interest in the Association, and her great encouragement to the members in the trials and difficulties of their work. In face of eventualities which might occur in the coming year, they must all work with unremitting ardour and see that the funds increased rather than decreased.

The vote of thanks was carried with acclamation. The meeting then adjourned, and the work done by members was inspected by those present, and after tea had been partaken of, many visitors were shown over the Hospital and Nurses' Home, special interest being taken in the lately renovated Victoria ward, where the Association supports six beds.

Appointments.

Civil.

Wheeler, F. J., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the East London Hospital for Children, Shadwell, E.

Military.

Territorial Force.—R.A.M.C.—Second Welsh Field Ambulance: Major A. W. Sheen to be Lieutenant-Colonel. Second London (City of London) Field Ambulance: Percy C. P. Ingram, M.B., B.S., to be Lieutenant.

J. B. Leathes, M.B., B.Ch. Oxon., F.R.C.S. Eng., has been appointed Professor of Chemical Pathology at the University of Toronto.

R. A. Chisolm, M.B., B.Ch., has been appointed Greville Research Student for Research in connexion with the subject of Cancer, Guy's Hospital Medical School.

Otitis and Rhinitis in Children.

CLINICAL LECTURE BY Mr. PHILIP TURNER.

Gentlemen,—For the subject of to-day's lecture I have chosen suppuration of the middle ear in children, and as I wish to speak especially about its causes and prevention I shall have to speak of rhinitis as well. Suppurative disease of the middle ear is a very common disease of children, and its serious results and complications are well known. When seen in adults it is very frequently found to have commenced many years previously in childhood. We get some idea of the frequency of the disease by noticing the numbers of children with a discharge from the ear seen at Ear and Throat Out-patients, but the vast importance of the subject to the community at large may best be grasped by considering the statistics published by the London County Council as the result of the systematic inspection of school children. For instance, in the public elementary schools in the London district alone there are 740,728 children on the rolls, of which number it is estimated that 14,728, or very nearly 2 per cent., are suffering from a purulent discharge from the middle ear. In addition to these, there must be a large number with adenoids, rhinitis or some predisposing cause. As we know, the treatment of this large number of cases is one of the problems of the day.

It will be necessary, first of all, to remind you of the following anatomical points which are of the greatest importance in obtaining a correct understanding of otitis media in children.

1. The tympanum, mastoid antrum, and the antrum of Highmore are all present at the time of birth. The other accessory air cavities of the nasal fossæ develop later.

2. At birth the tympanic cavity, encircled by the tympanic ring, is exposed at the base of the skull. There is no external auditory meatus in the fœtal skull.

3. The mucous membrane of the tympanum is continuous with that of the nose and the naso-pharynx by means of the Eustachian tube. This structure is, in the infant, comparatively shorter and wider than in the adult. Its pharyngeal aperture is nearer the floor of the nasal fossæ, and its posterior lip is less prominent. This anatomical arrangement renders infection of the tympanum and the passage of septic fluids from the naso-pharynx an easy matter in a young child.

The normal tympanic cavity is free from micro-organisms, and hence we have now to consider the way in which infection is brought about. This may happen in two ways: (1) The infection may be primary, *i.e.*, the organisms are brought by the blood stream; or (2) The infection may be secondary to a septic process in the naso-pharynx by extension along the Eustachian tube. The first of these, with the exception of tuberculous disease of the tympanum, is rare. The great majority of suppurations of the middle ear are caused by, and frequently are kept up by, some inflammatory process in the nose or naso-pharynx.

We will now proceed to consider the actual causes of middle ear suppuration, and it will be a useful thing to first consider the causation of the disease in infants a few weeks or a few months old. It is no uncommon thing to find, when investigating a case of chronic suppuration in an older child, that the ears have been discharging since the patient was a baby, and it is here especially true that treatment in the early stage, if thoroughly and carefully carried out, will be successful, whereas if neglected a chronic condition with disease of the antrum is likely to result.

We have seen that, usually, the middle ear suppuration is secondary to septic material passing from the naso-pharynx along the tubes to the tympanic cavity. In infants, vomit may thus pass to the middle ear. In cases of bronchitis and broncho-pneumonia mucus may also be driven along the Eustachian tubes. Occasionally otitis is secondary to some septic condition of the mouth, such as thrush. The naso-pharynx should be examined for adenoids, which may be present in a very young child. A nasal discharge should also be sought for, and in infants it must be remembered that rhinitis may be due to an infection from leucorrhœal discharge at birth, or may be due to congenital syphilis. The latter, however, usually affects especially the anterior part of the nasal fossæ, and does not often lead to middle ear suppuration.

In additon to the above, marasmus, teething, diarrhœa, and vomiting, must be regarded as predisposing causes.

The diagnosis of acute purulent inflammation of the middle ear in infants often presents considerable difficulties. In some cases the symptoms may be but slight. There may be some pain in the ear, which is soon followed by discharge of pus. The temperature may be very high, even up to 104°. In other cases, however, the symptoms may be obscure. The illness

may have a very acute onset, with pyrexia and vomiting, and the child may become drowsy, or even unconscious. Occasionally, too, convulsions may occur. In these cases, meningitis may be suspected, especially if the child is weakly. In other cases the symptoms may suggest the onset of one of the acute specific fevers. Usually the tympanic membrane perforates, and a flow of pus from the external auditory meatus, accompanied by a remission of symptoms, clears up the diagnosis. It is, however, well to remember always to examine the ears when one sees a young child with an obscure acute illness, accompanied by pyrexia and cerebral symptoms such as convulsions or drowsiness.

The following causes of middle ear suppuration are more frequently found in older children :—

1. It may occur in the course of the acute exanthems, especially measles, scarlet fever and diphtheria, and not infrequently whooping-cough and typhoid. This is an extremely important group of causes of suppurative otitis, since in these cases the inflammation is very likely to lead to extensive destruction of the middle and even the internal ear, with caries of the ossicle and extension of the inflammation to the mastoid antrum. Hence the prognosis in these cases is bad, the suppuration frequently becoming chronic. Serious complications are also likely to develop in this form of otitis.

2. Suppurative otitis may follow an injury. The injury may be caused by an instrument or foreign body introduced into the ear by the patient, or by a violent blow on the ear, or by an explosion. In these cases healing of the ruptured membrane may occur or the perforation may persist. Occasionally adhesions are formed between the ruptured membrane and the promontory. Typical middle ear suppuration is, however, very unlikely to be due to trauma.

There is also another cause of acute otitis media which may be described under the heading of injury, since the inflammation may be the sequela of an operation for the removal of adenoids. After this operation there is always a certain amount of sepsis in the naso-pharynx, and occasionally the inflammatory process extends along the Eustachian tubes to the tympanum. Usually, when this occurs, it is found that the patient has been recently complaining of ear-ache, and hence the tympanum was probably already in a condition of chronic inflammation. Sometimes blood may pass along the tubes, and set up an inflammation which ends in suppuration.

Occasionally this sequela of this operation for the removal of adenoids may be due to some injury to the pharyngeal orifice of the tube by the cutting edge of the curette, which has not been held strictly in the mid-line of the pharynx. Hence, in a case of adenoids, it is as well to postpone an operation for their removal, if the patient complains of ear-ache, and when operating all possible care must be taken to avoid injury to the Eustachian tubes.

Middle ear suppuration, too, is occasionally produced by syringing the nose in treating diseases of the nasal fossæ. If in a case of rhinitis a syringe of any sort is used to inject the fluid, some septic material may easily be forced through the Eustachian tube into the tympanic cavity. Hence, when the nasal fossæ require irrigation, a douche of some description, which allows lotion to trickle gently through the nose, should be used. Atrophic rhinitis is an exception to this rule, for here syringing is essential to loosen and bring away the crusts. In this case, however, the atrophy of the turbinates and of the nasal mucous membrane renders the fossæ so roomy that the fluid can run freely, and the danger is hence reduced to a minimum.

3. Middle ear suppuration may be caused by the presence of adenoids or of hypertrophied tonsils. This is an exceedingly common and important cause of middle ear disease. Adenoids cause a chronic catarrh of the mucous membrane of the nose and the naso-pharynx. This extends along the Eustachian tubes to the tympanum. When adenoids are present in a case of purulent discharge from the middle ear, their removal is necessary before the discharge can be cured. As I have mentioned above, the operation should be performed when the acute symptoms of otitis have subsided.

It must be remembered that adenoids grow not only from the roof and posterior wall of the naso-pharynx, but also from the lateral wall, especially from the fossa of Rosenmüller, and hence, after removal of the growths by the curette, these lateral recesses should always be explored by the finger, and any adenoids here present should be removed by the finger-nail.

4. A purulent discharge from the ear may result from any inflammatory condition of the nasal mucous membrane. Hence any case of chronic nasal discharge in a child should be very carefully treated, and in any case of middle ear suppuration the condition of the naso-pharynx and nasal fossæ must be investigated. In examining a case of nasal discharge it is necessary first to consider the nature of the discharge—

whether it is mucus, muco-purulent, purulent, or blood-stained. Also notice whether the discharge is unilateral or bilateral. A unilateral blood-stained muco-purulent discharge in a child should always suggest the possibility of the presence of a foreign body. Suppuration in the antrum of Highmore or the frontal sinus causes a unilateral purulent discharge in adults, but this is a rare condition in children. Nasal diphtheria and adenoids occasionally give rise to a unilateral discharge from the nose, though it is in these cases usually bilateral. It should also be ascertained whether the discharge from the nose is acute or chronic.

An acute nasal discharge may be due to the ordinary acute catarrh or cold. It also occurs at the onset of measles and also of influenza. In infants an acute catarrhal rhinitis may be caused as the result of infection from leucorrhœal or gonorrhœal discharge at birth. This may be accompanied by an acute swelling of the nasal mucous membrane leading to nasal obstruction, and in this way hindering the child from sucking. Congenital syphilis may cause a catarrhal rhinitis. This must be distinguished from gummatous disease of the nasal fossæ which also occurs in congenital syphilis, but usually between the ninth and fifteenth year. In this latter condition there is much destruction of bone leading to depression of the bridge of the nose, and destruction of the nasal septum.

Nasal diphtheria is a not infrequent cause of a chronic nasal discharge. The secretion is usually muco-purulent and frequently blood-stained. It usually causes excoriations about the nostrils and of the upper lip. Nasal diphtheria occurs in two forms. It may be present with ordinary faucial diphtheria, and is then easily recognised. It may, however, occur independently of faucial diphtheria, and is then easily overlooked, as the discharge is chronic and constitutional symptoms may be entirely absent. It frequently occurs in children who have had scarlet fever, and may be recognised by its muco-purulent blood-stained character and by the excoriations it produces on the lip. Membrane is usually absent in these cases, but a cultivation shows the presence of typical Klebs-Löeffler bacilli. These cases should always be removed to a fever hospital, as the discharge is infective, and may cause typical faucial diphtheria in other children.

A chronic rhinitis may persist after the exanthems, especially after measles and scarlet fever.

The presence of adenoid vegetations in the naso-pharynx is a very common cause of chronic rhinitis. The discharge is usually bilateral, but not invariably so. Any case of adenoids producing a chronic nasal discharge is likely also to cause middle ear suppuration, and hence the presence of a chronic nasal discharge is a strong indication for removal of the adenoids. The effect of removal of adenoids in curing a chronic nasal discharge is often very remarkable.

Hypertrophic rhinitis is of frequent occurrence in children. In this disease a mucoid discharge occurs, and on examination the nasal mucous membrane is soft, thickened, and the inferior turbinates are much enlarged. It appears to follow repeated attacks of nasal catarrh, and is often associated with the presence of adenoids.

Atrophic rhinitis, though it typically commences about the age of puberty, may occasionally be present in quite young children. It also appears to follow repeated attacks of nasal catarrh, but in this case the mucous membrane and the turbinates undergo atrophy, crusts form and decompose, leading to the typical offensive ozæna. This form of rhinitis is unlikely to lead to suppuration in the middle ear.

With regard to the treatment of middle ear suppuration, I will only mention certain general points. The first is, that when seen and treated thoroughly in an early stage by a reliable person, the prognosis is good. Unfortunately, among the poorer classes, this is usually not done; the discharge is neglected and becomes chronic. In a large proportion of the new patients seen at Out-patients the discharge has been going on for months, or years. In many cases, too, the treatment is carried out by the child's mother, and the syringing is often done irregularly, and often inefficiently. Whenever possible this treatment should be carried out by a nurse.

In a recent case the best treatment is the use of mild antiseptic lotions, such as carbolic lotion, 1 in 80, or boracic lotion. Hydrogen peroxide is of very great value, and is best applied in the form of drops, after the ear has been syringed to remove the pus. It should be allowed to remain in the ear for three or four minutes, and may then be removed by using another syringeful of the carbolic lotion.

Another extremely important point in the treatment of these cases is to consider the general health of the patient. In weakly or tuberculous children, or when the discharge follows one of the acute fevers, the prognosis is distinctly worse than when the patient is otherwise healthy. Hence it is of great importance to give drugs, such as iron and malt, iron and

arsenic, or cod-liver oil. The nose and naso-pharynx must always be examined, as any catarrhal condition of the mucous membrane of these structures will certainly impede a cure. Adenoids or enlarged tonsils should be removed. Hypertrophic or other forms of rhinitis must be treated. Usually a mixture containing iron and arsenic does much good in this disease.

Lastly, much can be done in the prevention of purulent otitis by treating the various causes I have mentioned. Especially any form of rhinitis should be treated, and adenoids, if present, should be removed.

Any tendency to mouth breathing in children should be corrected by exercises, or removing any nasal obstruction, as mouth breathing is certainly a strong predisposing cause to attacks of catarrhal rhinitis, and, in some cases, is probably the cause of the development of adenoid vegetations and of hypertrophy of the tonsils.

The Goblins.

THE Goblins dined again on Thursday, the 6th May, at the Café Royal, with Mr. R. P. Rowlands in the chair.

There were present:—Dr. E. I. Spriggs, Bryanston Square, W.; Dr. F. J. Lidderdale, Folkestone; Dr. W. J. Lindsay, Herne Hill; Dr. W. E. Hills, Hampstead; Dr. J. B. Poole, Westcliff; Dr. E. Rowlands, Reading; Dr. M. H. Way, Southsea; Dr. R. Balderstone, Forest Hill; Captain M. H. Thorneley, I.M.S.; Mr. F. E. Fremantle, Hertfordshire; and Mr. P. Henry, City (Hon. Sec.).

The following wrote to regret their inability to attend:—Dr. A. E. Porter, Reigate; Dr. J. B. Walters, Park Crescent, W.; Dr. N. H. Pike, Heckmondwike; Dr. W. N. East, Brixton, S.W.; Dr. E. I. Clowes, Grantley; Dr. F. J. Nicholls, Eastbourne; Dr. E. Hancock, Bath; Dr. A. H. Curtis, Wolverhampton; Dr. W. Daly, Bramley; Dr. H. Cardin, Stock; Mr. H. J. Starling, Norwich; Dr. A. J. Cleveland, Norwich; Dr. J. F. Brickdale, Bristol; and Dr. A. T. Falwasser, Maidstone.

There were no speeches, but the company spent a very pleasant evening notwithstanding. Probably no Year's Club has lost so many members in the service of their country, and this year the club has had to mourn the death of Captain Hallam Hardy, R.A.M.C.

Dr. Porter was elected President for the ensuing year.

BOOKS RECEIVED.—Park & Williams' Pathogenic Micro-Organisms; Holt's Diseases of Children; Munro Kerr's Operative Midwifery; Further Advances in Physiology, edited by Leonard Hill, M.B.; Adami's General Pathology; Tweedy & Wrench's Rotunda Practical Midwifery; Mackenzie's Diseases of the Heart; Rolleston's Diseases of the Liver; Ikonographia Dermatologica: An Atlas of New and Rare Skin Diseases, Parts I., II. and III.

Guy's '89 Club.

THE Fifteenth Annual Dinner of the Guy's '89 Club was held at the Hotel Cecil on May 12th. Dr. J. A. Howard presided, and a most successful evening was passed. The following members were also present:—A. P. Beddard, C. D. Edwards, R. H. Fagge, C. H. Fagge, E. R. Fothergill, W. S. Handley, E. F. H. Hardenberg, A. C. Hovenden, M. P. Jones, J. Moore, E. A. Peters, A. A. H. Partridge, W. E. Robinson, B. A. Richmond, J. R. Steinhaeuser, F. J. Steward, H. M. Stewart, A. Scott Turner.

Pass List.

ROYAL COLLEGE OF SURGEONS, May, 1909.—Primary Examination for the Fellowship: V. Glendining, W. H. Miller, M.B., B.S. Lond.; M. Mutch, B.A. Cantab. Final Examination for the Licence in Dental Surgery: C. H. Brangwin, N. D. Clarke, F. L. Furse, R. C. Morgan, G. H. Rowley, H. G. Spain, J. A. W. Stuart.

MEDICAL DEPARTMENT ROYAL NAVY.—Examination for Surgeon: K. H. Hole, G. F. Syms, R. P. M. Roberts.

UNIVERSITY OF CAMBRIDGE.—Degree of Doctor in Medicine Conferred: Ronald E. French, King's; F. W. Morton Palmer, Jesus. Degrees of M.B. and B.C. Conferred: B. H. Palmer, Pembroke.

Change of Address.

G. Winter Dryland, L.R.C.P. Lond., M.R.C.S., from Guy's Hospital, to Pitfour, Kington, Herefordshire.

K. H. Hole, M.B., B.S., M.R.C.S., L.R.C.P., from Guy's Hospital, to Haslar Hospital, Portsmouth.

Ivor Margolies, L.D.S., R.C.S.E., from 15, Saxe Cobourg Street, Leicester, to 1, Marple Mansions, 385, Oxford Street, W.

B. G. Neale, L.R.C.P. Lond., M.R.C.S., from the Rookery, Tickenham, Nailsea, Somerset, to Karenza, Highdale Avenue, Clevedon, Somerset.

P. H. Hayes Palmer, L.D.S., R.C.S.E., from 112, Harley Street, W., to 112a, Harley Street, W.

E. G. Robertson, L.D.S., R.C.S.E., from 28, West Southernhay, Exeter, to Hillingdon, 25, Carlton Road, Southampton.

Herbert A. Watney, M.B., B.S. Lond., from 294, Gray's Inn Road, W.C., to The Red House, Halstead, Essex.

F. J. Wheeler, L.R.C.P. Lond., M.R.C.S., from Guy's Hospital to East London Hospital for Children, Shadwell, E.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

The Present-Day Treatment of Syphilis:

Its special value in Prophylaxis and in Prevention of Recurrence.

THE TREASURER'S PRIZE ESSAY.

Read before the Physical Society, on 17th March, 1909, by LIEUT. H. STOTT, I.M.S., M.B., B.S.

(*Concluded.*)

6.—HYDROTHERAPY AND ZITTMAN'S FORMULA IN THE TREATMENT OF SYPHILIS.

Hydrotherapy may be combined with the mercurial treatment. The patient may be sent, if it seems desirable, to one of the great resorts, where inunction is practised together with a system of the external application and the internal administration of local spring waters. The warm salt springs of Wiesbaden, or the sulphur waters of Aix-la-Chapelle, have much repute, but the extra beneficial results derived from visits abroad for these cures would seem to be due more to the regular healthy life, change of scenery, and self-restraint imposed upon patients than to any actual intrinsic charm in the waters used. The purgation, diuresis, and diaphoresis produced, however, by a course of such natural laxative waters may have some effect on the elimination of the specific poison. The sulphur baths, too, would probably soften the skin, and so render the absorption of the mercury rubbed in an easier matter. These baths may be well imitated by the addition of one or two ounces of the liquor calcis sulphuratus to each thirty gallons of water used.

Zittman's treatment has the same underlying principle of eliminating the poison by purgation and sweating. His formula, which is rather complicated, may be found in Appendix VI. of the "Manual of Venereal Diseases." A course lasts for fifteen days, and includes small doses of calomel and sarsaparilla.

At Netley, Zittman's treatment has been found useful in debilitated soldiers from the tropics, especially in those suffering from cutaneous lesions.

Sir Alfred Cooper, one time Vice-President of the Royal College of Surgeons, and Consulting Surgeon to the West London, St. Mark's, and to the Lock Hospitals, states that it is just in those cases of malignant syphilis, which not only refuse to respond to mercury and the iodides, but which seem to be aggravated in every symptom by their administration, that Zittman's treatment proves most beneficial, and that under it healing rapidly occurs and the symptoms quickly disappear, often in a most marvellous manner. The way in which bad cases of tertiary syphilis will clear up under this treatment after all other forms of treatment have failed is, he says, most astonishing. He has seen the most marvellous results from it, and he thinks it ought to be be more widely known, and become a generally-recognised form of treatment.[21] Such a recommendation from so high an authority must, then, be borne well in mind.

7.—THE LOCAL TREATMENT OF SYPHILITIC MANIFESTATIONS.

It is a recognised general rule that the later a syphilitic lesion manifests itself, the more efficacious becomes the local treatment adopted.

We will now consider the local treatment of the more important specialized manifestations of syphilis.

i. *The local treatment of the chancre.*

As the system is already infected by the time the hard sore appears, its excision or cauterization is never indicated. A mercurial wash should be used, and between the washings a powder of iodoform or calomel should be dusted on the hard chancre.

If there be much ulceration, Colonel Lambkin recommends that it should be painted with a solution of perchloride of mercury and tincture of benzoin, to protect it from pyogenic infection. An antiseptic dressing should then be applied.

If the discharge be thick and tenacious, preference should be given to a mercurial ointment over a dusting powder.

If the chancre be complicated with chancroids, these latter should be cauterized.

If phagedænic ulceration makes its appearance, fuming nitric acid should be applied to the spreading ulcer, and the continuous use of an antiseptic sitz-bath, if necessary, prescribed, or the penis may be immersed in an ordinary bottle-shaped urinal containing a similar solution. Whilst the parts are out of the fluid, the application of iodoform powder or ointment is advisable. In Colonel Lambkin's experience, chromic acid is the best caustic which can be applied, but such strong caustics as these should only be used after anæsthesia, general or local, has been produced.

ii. *The local treatment of the syphilides.*

In an ordinary case, local treatment for the rash is unnecessary.

Chronic indolent syphilitic skin eruptions, however, may be treated with the calomel vapour bath, or may be rubbed with the unguentum hydrargyri oleatis.

A case of a late palmar syphilide was quoted at the Nottingham Medico-Chirurgical Society by Dr. Whitfield, which, after resisting all forms of mercury and iodides, finally yielded satisfactorily to the X-rays.[22]

Jonathan Hutchinson advises the application of iodoform ointment to all syphilitic sores, especially those of the primary and secondary stages.

iii. *The local treatment of mucous patches and condylomata.*

These may be washed with lotio nigra, and then dusted with a powder consisting of calomel 1 part, zinc oxide 2 parts, or they may be cauterized with solid nitrate of silver, as recommended by Fournier.

21 The Practitioner, July, 1904, p. 52.
22 B. M. J., vol. i. 1906, p. 264.

iv. *The local treatment of ulcerating gummata.*

Mercurial lotions, liniments or ointments should be applied (*e.g.*, lotio nigra, lin. hydrarg., ung. hyd. oleat.), followed later by some stimulating application (such as the lotio rubra or the unguentum zinci carbolicum, both of the G.H.P.), or even a blistering fluid (liquor epispasticus). If the ulcer does not now heal, erasion or even excision may be practised.

If there be extensive secondary pyogenic infection, hydrogen peroxide will probably soon clear the ulcer up.

The proprietary wash "Perhydrol," which contains 100 per cent. by volume of hydrogen peroxide, is extensively used at the Military Hospital, Rochester Row, where cotton wool moistened with it is dabbed on the ulcerated surface.

v. *The local treatment of syphilis of the nose, throat and larynx.*

The commonest lesions here are those of the mucous membrane of the oro-pharynx in secondary syphilis. In such cases, the mouth toilet must be rigidly enforced. (℞ pot. chlor. gr. x., lotionis nigræ ʒi., for use with an equal quantity of warm water.) All smoking and strong spirits must be eschewed; and the iodides, which are especially indicated in lesions of the mucous membrane, should be ordered.

If much mercury has been given, a rest from it is indicated; if little, a course of intra-muscular injections may well be started.

Silver nitrate may be applied to any obstinate ulcer present.

The sloughing gummata of the fauces or palate should be sprayed with warm hydrogen peroxide and washed with a gargle.

In luetic disease of the nose, oro-pharynx, or larynx, the employment of lotio alkalina as a spray, followed by the inhalation of sublimed calomel, may be useful.

Syphilitic ozœna should be treated by the application of some form of mercury and the removal of any necrosed bone present. If the ozœna be due to past extensive destruction of bone and mucous membrane, it should be locally treated as any other form of atrophic rhinitis.

vi. *The local treatment of syphilitic disease of the eye.*

Luetic iritis and chorido-retinitis are locally treated with atropine, leeches, hot fomentations, rest, protection from light, and the inunction of mercury into the temporal region.

Darier[25] has advocated the subconjunctival injections of six minims of 1 in 1000 mercury cyanide solution for syphilitic conditions of the eye; intra-ocular injections have also been suggested.

In the acute stage of interstitial keratitis, atropine drops, hot fomentations and smoked glasses are indicated, whilst later, when the opacities have started to become absorbed, the application of a mild stimulating mercurial ointment, such as unguentum hydrargari oxidi flavi, should be undertaken. W. H. Jessop, senior ophthalmic surgeon to St. Bartholomew's Hospital, says that in interstitial keratitis the subconjunctival injection of about six minims of a 5 per cent. solution of sodium chloride "is often followed by marked improvement."[24]

The local treatment of muscular paralysis is the local stimulation of the action of the affected muscles.

In syphilitic disease of the optic nerve, tertiary lid-affections, and periostitis of the orbital bones, local treatment must be carried out as common-sense principles direct.

8.—The Iodides in the Treatment of Syphilis.

We must again call to mind that there is one drug, and one drug only, at present, which is known to cure syphilis, viz., mercury. The iodides are a most useful adjuvant to our mercurial treatment, but they cannot replace it. The well-worn aphorism, "mercury for the first two stages, iodides for the third stage" of syphilis, must be given a generous interpretation, for mercury is sometimes as indispensable in the treatment of tertiary syphilis as the iodides are useful in the secondary stage.

Lang, of Vienna, treats the headaches of the early secondary stage, before the rash appears, with small doses of the iodides.

In the secondary stage of syphilis, if the mucous membranes are affected, the administration of the iodides greatly adds to the efficiency of the mercury[25]; for some reason the drug has an especially favourable action when there is lesion of the mucous membrane.

A short course of the iodides should always be given in secondary syphilis, for they are thought to have a prophylactic action in warding off the arterial degeneration so often seen as a result of luetic disease.

It is also stated that they have a marked influence in the reduction of the high temperatures sometimes met with, especially in the tropics, at the start of the second stage.

But it is in tertiary syphilis that the beneficial action of the iodides is so invaluable, leading as they do to the rapid absorption of gummata and other specific deposits. This effect is said to be due to a combination between the iodine liberated in the deposit and the albumen of the gummatous cell, which dies and is promptly absorbed.[26]

In cases of malignant syphilis, the iodides should be given promptly and early.

Potassium, sodium, and ammonium iodides may be given alone or in combination together. Ten grains three times a day, after meals, is usually sufficient, and is best prescribed, as recommended by Sir James Paget, in a mixture with a diffusible stimulant.

The mistura potassii iodidi of the G.H.P. contains a bitter stomachic in addition (pot. iod., gr. v., sp. amon. arom. ɱxx., inf. gent. co. ʒiv., aquam. ad. ʒi.).

The iodides are contra-indicated in cases of mercurialism, especially if the treatment has been carried on by the intramuscular injection of metallic mercury, for there is then the obvious danger of still further flooding the system with a soluble mercurial.

23 Ocular Therapeutics, 1903, p. 28.

24 Practitioner, July, 1904, p. 114.

25 Major Pollock, M. V. D., p. 170.

26 Dixon's Manual of Pharmacology, p. 349.

If the iodides give rise to dyspepsia, a tumblerful of warm water, slowly sipped half an hour before eating, will wash away any trace of iodide still adhering to the stomach wall, and thus relieve the dyspeptic trouble, or, if the stomachic upset be very severe, four times the dose of iodide given by the mouth may be administered in four ounces of water as an enema.

Symptoms of iodism are almost certainly produced by the irritation of the liberated iodine, which is said to be set free in the body by nascent oxygen acting on the iodides in acidulated solution (Binz). This necessary acidity is supplied by the carbonic acid dissolved in the body fluids. Hence, on the one hand, the treatment of this condition by the administration of large doses of sodium bicarbonate, which, neutralising the acid, checks the symptoms of iodism; or, on the other hand, the treatment by increasing the dose of iodide given, for it is a well-known fact that iodine is freely soluble in excess of potassium iodide.

Small doses of Fowler's solution added to the mixture may prevent the skin eruptions sometimes met with.

Several preparations of iodine have been synthesised with the object of producing a drug of equal efficiency, but less toxicity, than potassium iodide.

"Iodalbacid" is a compound of iodine and albumen, which is said to contain 10 per cent. of iodine. It is a mild, easily-taken powder, which keeps well in the tropics, and hence is useful to travellers. (Dose, gr. xv. t.d.s.)

"Iodival," a new organic preparation of iodine, is said by Dr. Rothschule, of Aix-la-Chapelle,[27] to seem to be the most perfect substitute for potassium iodide, according to results recently obtained in research work. It passes unchanged through the stomach, dissolving in the intestinal tract in the form of the sodium salt. Hence it does not interfere with the stomachic functions, and is said to show a special affinity for diseases of the central nervous system. Its dose is five grains three times a day, which is the equivalent of fifteen grains three times a day of potassium iodide.

"Iodipin" (Merck's) is a compound of iodine and sesame oil, containing 25 per cent. of iodine. This is a very useful preparation for debilitated cases of syphilis, for it is non-depressant, non-toxic, and does not cause gastric upset. This drug is given hypodermically in 20 c.c. doses every other day, for five injections, at the Rochester Row Military Hospital, when the second course of intramuscular injections is commenced. 15 to 20 c.c. doses, on ten consecutive days, have produced no bad effects.[28]

The iodopin solution should always be warmed before use. The preparation has one disadvantage—it is very slow in its action, so that in all cases when an immediate effect is desired, potassium iodide should be given.

Iodipin, standardised to contain either 25 per cent. or 10 per cent. of iodine, can also be given in capsules by the mouth. Major Ward recommends the drug in cases of leucoplakia.

27 Folia Therapeutica, vol. iii., No. 1, p. 12.
28 Lancet, vol. ii., 1906, p. 1205.

9.—THE TREATMENT OF SYPHILIS BY VACCINATION AND SERUM-THERAPY.

The treatment of syphilis by anti-sera was first practised some twenty years ago, when the blood-serum of animals, which at that time were thought to be all immune to syphilitic inoculation, and hence, theoretically, contained in their blood some substance antagonistic to the syphilitic virus, was used for the treatment of syphilitic patients. A second class of sera which were tried were those obtained from old syphilitic patients, from those who had been successfully treated with mercury, or from congenital syphilitic children. A third class of sera were prepared from animals which themselves had been inoculated with the human blood of syphilitic patients in the primary or secondary stages of the disease, and still a fourth class of sera were obtained from animals which had been subjected to a course of mercurial treatment.

No improvement was evidenced as a result of treatment with these primitive sera.

With, however, the communication of syphilis to apes, by Metchnikoff and Roux in 1903, and the discovery of the parasite of syphilis, by Schaudinn in 1905, the attempt to obtain a specific vaccine or serum again received an impetus.

Metchnikoff's attempts at producing immunity by prophylactical inoculation with a virus attenuated by its passage through the anthrapoid apes and lower monkeys have already been referred to,[29] and although, at present, there is but little experimental work in support of this vaccination, yet it would seem that in some such method as this, which bears the same relation to lues as Jennerian vaccination does to small-pox, lies the most hopeful outlook (though slight it is) for the production of an artificial immunity in man.

Therapeutical vaccination, with a virus rendered inactive by heat, is useless, whilst attempts to confer passive immunity on animals by anti-sera obtained from any of the above-mentioned sources have been proved to be equally valueless.

Neisser, speaking in 1906 at the Lisbon International Congress, states that in his opinion the failure of anti-syphilitic vaccines is due to the fact that no truly attenuated virus has yet been produced, and the failure of anti-sera by the fact that they cannot yet be prepared strong enough to protect against syphilitic infection.

The whole question of the treatment of syphilitics by vaccines and sera is academically an absorbingly interesting one; for at once a discussion is opened up as to the formation of specific antibodies in connection with the protozoa.

Colonel Leishman thinks that the general impression nowadays is that they do give rise to such antibodies, though perhaps not on quite the same lines as in the case of bacteria.

If this be so, the usual permanent immunity conferred on an individual by an attack of syphilis is easy to understand, and the future may still solve the problem

29 Lancet, vol. i., 1906, p. 1629.

of antiprotozoal vaccination. If, on the other hand, these animalculæ do not stimulate the formation of some variety of antibody, then we must regard the apparent permanent immunity conferred by syphilis as a false immunity; that is to say, the patient cannot develop a second attack of syphilis, because he is still the subject of syphilitic infection. Those rare cases in which a second primary chancre has developed some years after the first attack of syphilis are thus easily explained by the supposition that the patient was cured of his first attack of syphilis, by the direct antagonization of every spirocheta pallida present, with mercury, or some other agent, and that this total antagonization has left him a susceptible victim to a second luetic infection. Evidence as to the occurrence of phagocytosis, too, which might help us in this problem of protozoal antibodies is contradictory. On the one hand, Metchnikoff in "A System of Syphilis,"[30] gives some excellent micro-photographs of spirochetes apparently phagocyted by mono-nuclear and polymorphonuclear cells. Colonel Leishman, on the other hand, has not been able to satisfy himself on this point.

We must, then, for the present, leave the question as to the theoretical possibility of the treatment of lues by vaccination and sera unanswered; believing, as we do, that the protozoa do stimulate the formation of some variety of antibody, and leaving the future to elucidate of what variety this may partake.

Be these theoretical conclusions as they may, there is no doubt that, at the present day, the outlook for the practical treatment of syphilis, whether by prophylactical or therapeutical vaccination, or by serum-therapy, is far from encouraging.

10.—The Treatment of Syphilis by the Arylarsonates alone.

It has been stated above that there is, at present, one drug, and one drug only, which will cure syphilis. It seems likely, however, that we possess at present a second specific for this disease, which if not destined to become more valuable than mercury itself, yet must undoubtedly take a most important place in the therapeutics of syphilis.

This second specific is arsenic in organic combination with an aromatic radicle, which renders it, in comparison with the inorganic salt, non-toxic, and thus permits of the introduction into the system of a hitherto impossible dose of arsenic.

As to whether these compounds are true specifics or not, it remains for the clinical experience of the present and the future to decide. At the present moment there can be no manner of doubt at all that, as immediate curative agents of primary and secondary specific lesions, the pure preparations of the arylarsonates are preferable to those of mercury. But, with regard to their value in the prevention of future manifestations of syphilis, the evidence of the future histories of cases treated with these salts alone is needed, both as to the development of tertiary symptoms and also of the para-syphilitic diseases.

30 Plate viii., vol. i.

We have personally only been fortunate enough to follow one case of syphilis treated at the start with an organic arsenic compound alone, but this case demonstrated the wonderful immediate beneficial effects following this line of treatment. A patient, exposed to infection, developed a typical penile Hunterian chancre, in scrapings from which Major Harrison, demonstrator of pathology at the Royal Army Medical College, Millbank, found the spirocheta pallida.

A few spots had just appeared on the patient's abdomen when he was started on a course of Soamin, which was given intra-muscularly in doses of gr. x, every alternate day for nine days. After the third injection on the sixth day, the chancre, previously ulcerated, had skinned over; the bullety buboes had softened, and all traces of the rash had disappeared. After the ninth injection the patient showed not a sign of syphilis, and not the slightest abnormality about the penis was evident. At present, two months later, he is perfectly well and shows no further signs of the disease. It is now proposed for the first time to start him on a full two years' prophylactic course of mercury. Major Ward expressed himself as much surprised by the quick way in which the induration had subsided.

This case, then, supports the other abundant clinical evidence detailed below in demanding an extensive clinical trial of these organic arsonates, and although it would seem at present a trifle early to point to any advantage of arsenical over mercurial treatment, yet the length of time the two courses take (three weeks as compared with two years), the more rapid disappearance of secondary lesions (and hence the greatly lessened risk of conveying infection by mucous tubercles and such like), together with the respective well-known tonic and depressant effects of the two drugs, would seem to point to a great advance in the therapeutics of syphilis if the replacement of the mercurials by the arylarsonates could be achieved.

One important point needs to be noticed in the administration of these organic arsenic compounds; both the gastric juice[31] and mercurials[32] decompose them, and hence symptoms of arsenical poisoning may readily occur if the drug be given by the mouth, or at the same time as mercury.

As with mercury, then, so with arsenic; the intramuscular injection has been found to overcome those difficulties which became evident when efficient doses were administered *per os*.

There are at present four important preparations of the arylarsonates in the market—"Atoxyl" and "Arsacetin," of Continental reputation; "Soamin" and "Orsudan," of British manufacture, the former of these two being chiefly used by Colonel Lambkin, and the latter by Mr. Ernest Lane.

Chemically, the arylarsonates are the salts of arsonic acid, in which the "hydroxyl" of the arsenic acid has been replaced by a radicle of the aromatic group.

31 The Prescriber, December, 1907, p. 280.
32 The Lancet, vol. i., p. 113.

Thus, arsenic acid $AsO(OH)_3$ becomes arsonic acid $AsO(OH_2)X$, when hydroxyl (OH) is replaced by any organic radicle (X). Now if this organic radicle (X) belongs to the benzene or carbolic group, *i.e.*, be an aromatic radicle, we have "aryl" arsonic acid. Moreover, if this "aryl" organic radicle (X) happens to be "amino-phenyl" ($C_6H_4NH_2$), we have amino-phenyl arsonic acid, or $AsO(OH_2)C_6H_4NH_2$, whose sodium salt is $C_6H_4(NH_2)As(OH)(ONa)$, or mono-sodium para-amino-phenyl arsonate, which is chemically the constitution of "Atoxyl" and "Soamin" of commerce.

"Arsacetin and "Orsudan" carry the substitution still further, the former by the replacement of one hydrogen atom of the amino group (NH_2) of the salt by acetyl (C_2H_3O), thus giving the formula $C_6H_4.(NH)(C_2H_3O).AsO(OH)(ONa)$, or acetyl-atoxyl, the latter, by the further addition of methyl (CH_3) groups to this already overgrown formula.

We will now briefly review the therapeutical metamorphosis of these arylarsonates, together with the reported clinical observations on their use in syphilis.

Mono-sodium para-amino phenyl arsonate was first described by a French chemist, Bêchamp, in 1863, but it was not until 1901 that a German firm introduced the salt as a drug, under the proprietary name of "Atoxyl," which contains roughly 24 per cent. of arsenic, and is said to be some forty times less poisonous than inorganic arsenic.[33]

"Atoxyl" was first employed as a medicinal agent in the treatment of the various diseases of the blood, in neurasthenia, in tuberculosis, in skin affections, and in tumorous growths.

A great advance in the therapeutics of this drug was made in 1906, when Koch had much success in East Africa from the treatment of sleeping sickness by the subcutaneous injection of atoxyl. Benefit was also reported from the administration of this preparation in such other protozoal affections as malaria and kala-agar. It was a short step from this to the application of the drug to still another protozoal disease—syphilis.

Salmon[34] and Nassar,[35] in Germany, and Hallopean,[36] in France, were apparently the pioneers of this movement. The latter, basing his results on some 120 cases, found the drug markedly successful in the relief of the primary and early secondary manifestations, but to a less extent in the late secondary and tertiary symptoms.

In England, Mr. Ernest Lane was the first to apply the arylarsonates to the therapeutics of syphilis, treating four cases with "Atoxyl" in July and August, 1907,[37] but after giving the drug in small doses without benefit he abstained from its further usage.

To Colonel Lambkin, to whom syphilology already owes so great a debt, and to Major Ward, belongs the real honour of the introduction and successful adaptation of the arylarsonates to the treatment of syphilis.

Colonel Lambkin's first series of cases, nineteen in number, were treated during August, 1907, at the Military Hospital, Rochester Row, with "Atoxyl" alone. He states that, although handicapped as to the knowledge of the best dosage to employ, the results were encouraging, and treatment was continued.[38]

Many cases of poisoning after the administration of "Atoxyl," even up to permanent blindness, were reported,[39] whence in the second series of thirty cases treated at the Rochester Row Hospital, a less toxic preparation of mono-sodium para-amino-phenyl arsonate, namely, "Soamin" (B. W. & Co.), was utilized.

The second series of cases was published by Major Ward in the Journal of the Royal Army Medical Corps for April, 1908.

In no case treated did the slightest toxic symptom manifest itself, nor did any sign of pigmentation or keratosis appear, although on an average a total of 75 grains of the preparation were injected into each patient.

Major Ward says, "The results have been most satisfactory, and in some cases remarkable;[40] we feel satisfied that in this sodium amino-phenyl arsonate we have a very valuable agent in the treatment of syphilis."[41]

Meanwhile, on the Continent, "Arsacetin" or "Tylarsin," or "Acetyl-Atoxyl," was highly recommended by Erlich,[42] as being the long-looked-for atoxic preparation of these arsenic salts.

This conclusion was drawn from the experimental inoculation of mice; but, in other animals, Erlich stated that decomposition of the drug into aniline and acetic acid took place.[43]

Neisser, however, strongly upheld the use of this preparation in the treatment of syphilis, and advises, contrary to the opinion of the British syphilologists, the simultaneous injection of tylarsin with mercury. He gives two injections a week on two successive days, each injection containing gr. ix. of tylarsin. A course of twenty injections in all are given.

Returning once more to England, a third series of thirty cases were described by Colonel Lambkin at the Seventy-sixth Annual Meeting of the British Medical Association,[44] which had all been treated with soamin between March 1st and July 1st, 1908. No signs of toxicity or bad effects from the drug were noted.

Colonel Lambkin concludes:[45]—

i. There is strong reason to believe that, given early and in sufficient quantities, the arylarsonates can be looked upon as prophylactic, in the majority of cases, against any further development of the disease.

33 Maass. "Arsenic as Poison and Remedy," in "Berliner Klinische Wochenschrift," 1907. No. 17.
34 Comptes Rendues Lebdomadaires Soc. Biologie, 22 March, 1907.
35 Berliner klinischen Wochenschrift, 22 April, 1907.
36 Bulletin Générale Thérapeutique, 23 June, 1907.
37 The Clinical Journal, Feb. 3rd, 1909, p. 260.
38 B. M. J., Aug. 15th, 1908, p. 391.
39 Case discussed at Académie de Medicine, July, 1907.
40 Journal of R A.M.C., April, 1908, p. 386.
41 Journal of R.A.M.C., April, 1908, p. 391.
42 Lancet, i., 1907, p. 1634.
43 Lancet, i., 1907, p. 1634.
44 B. M. J., August 15th, 1908, p. 392.
45 B. M. J., August 15th, 1908, p. 393.

ii. That they undoubtedly delay and modify very remarkably the secondary symptoms.
iii. That they appear to exert a markedly beneficial effect on all syphilitic ulcerations.
iv. That in these salts we are now in possession of a second specific for syphilis, and need not add that the importance of this cannot be well exaggerated.

A fourth series of thirty-four cases were reported in the *Lancet* of December 5th, 1908, by Colonel Lambkin. Twenty-six of these were treated with soamin, two only showed slight toxic symptoms after the eighth injection. The symptoms complained of were "noises in the head," "slight colic," and a "peculiar feeling in both legs." Both these patients were over fifty years of age.

Eight cases of the series were treated with the "Arsacetin" recommended by Erlich and Neisser, and of this drug Colonel Lambkin says: "One cannot help being very much struck by the remarkable results one has seen following its use in the cases treated."

He concludes:—"The good results obtained from the arylarsonates in this further series of cases go to strengthen one's conviction that, in them, we possess a second specific for syphilis, at least from a preventive and remedial point of view. As regards the former, I have at present ten cases under observation" (treated with soamin alone) . . . "which have now been all closely observed every week during the last ten months, without developing any further signs of syphilis. From the remedial point of view, the good results of these thirty-four cases speak for themselves."

The fourth important preparation of these arylarsonates is "orsudan," which rejoices in the formula of 3 methyl- 4 acetyl-amino-phenyl arsonate (B. W. & Co.). It contains more arsenic than "soamin," and is said to be less toxic. Thus "orsudan" roughly bears the same relation to "soamin," as "arsacetin" does to "atoxyl."

Mr. Ernest Lane reports, in the *Clinical Journal* of February 3rd, 1909, twelve cases treated with this preparation, which was injected in the same dosage and manner recommended by Colonel Lambkin for "soamin." In one case a patient vomited once, and in two there was some diarrhœa, which was treated by a slight lengthening of the period between the doses. No other toxic symptoms manifested themselves.

Mr. Lane goes on to say:—"As regards the results, they are, in my opinion, most satisfactory, and such as could not have been obtained by any form of mercurial treatment, not even by the intra-muscular injection of calomel, which I have hitherto regarded as the most efficient treatment of syphilis; . . . there is hope that in a large proportion of cases immunity may be permanent."

The clinical experience, then, of the officers of the Royal Army Medical Corps, who have experimented with these new drugs, and of Mr. Ernest Lane, has unanimously been that these arylarsonates are of undeniable value in the present-day treatment of lues.

There is, moreover, a most important indication for the administration of these drugs, which greatly enhances their utility. In those cases of syphilitic infection, in which for any reason mercury is contra-indicated or has no effect, the advantage of having at one's command a second specific is obvious.

The arylarsonates would, then, seem to be especially indicated under any one of the following conditions:—

i. When the patient, from any cause whatever, cannot tolerate sufficient mercury to relieve his symptoms.
ii. When a weakly and debilitated patient seems likely to benefit from such an excellent tonic course as the arylarsonates offer.
iii. When the patient is suffering from some such disease as dysentery and tuberculosis, in which the administration of mercury is not advisable.
iv. When there is especially severe ulceration of the mucous membrane, or disease of the skin.
v. In old chronic cases with obstinate tertiary ulcerations, the arylarsonates have been found of value.
vi. And, lastly, in the severe malignant cases of the tropics.

11.—THE TREATMENT OF SYPHILIS BY THE ARYLARSONATES COMBINED WITH MERCURY.

In trypanosomiasis it has been definitely decided that atoxyl gives the best results when administered with some form of mercury.[46]

Moore, Nierenstein, and Todd's experiments also support this view. They inoculated three groups of rats with T. Brucei, and placed them all under the same general conditions. The first group were left untreated, the second group were treated with atoxyl alone, and the third group with atoxyl and succinimide of mercury.

All those untreated, or treated with atoxyl alone, died, but the latter lived longer than the former.

Of those treated with atoxyl and succinimide of mercury, 68 per cent. survived, whilst the remaining 32 per cent. who died, lived longer than any of the animals in the first two groups.

The application of this result to other protozoal infections such as syphilis, then, must not be lost sight of, and more especially as some observers claim that the spirochetes should be classified amongst the trypanosomata,[47] whilst Schandium himself believed that the spirocheta pallida was closely allied to this group of parasites.

Neisser, too, strenuously advocates the simultaneous injection of the arylarsonate "tylarsin" with mercury.

Colonel Lambkin, on the other hand, advises that these arsenic compounds should not be given simultaneously with mercury, nor, indeed, should treatment with one be commenced until there has been a rest of at least fifteen days from the termination of a course of the other. But this prohibition would seem to be based more on the well-founded fear of decomposing the arylarsonate, than the knowledge that such combined administration of these two drugs does not increase the efficiency of either.

In short, the reason why syphilologists fear to administer mercury and the aromatic arsonates together is a chemical and not a clinical one.

46 Lancet, vol. i., 1908, p. 113.
47 Krzysztaloivicz and Siedlecki, Bull. Head. Sc. Cracvie, p. 713, 1905.

But although it would seem, at present, inadvisable to combine the administration of the arylarsonates and mercury in one course, yet, with the present limitation of knowledge on this subject, there is no doubt that a course of the former should be supplemented by a course of the latter.

Colonel Lambkin says,[48] "Until the question as to the capability of the arylarsonates bringing about a complete cure is established, I consider that, after a course of arylarsonates, mercury should be given, and for this purpose, after my patients have completed a course of the arylarsonates, I put them on intra-muscular injections of metallic mercury."

12.—THE SURGICAL TREATMENT OF SYPHILIS.

Although the application of surgery to the treatment of syphilis is limited, yet such aid distinctly has its place in the alleviation of certain manifestations of this disease.

When gummata approach the surface and point, they should be opened aseptically, their cavity should be packed with sterile gauze soaked in sterile lotio nigra, and the whole covered with an antiseptic dressing.

The separation of a syphilitic epiphysis, whether spontaneously or by trauma, should be treated by accurate apposition and immobilization in plaster of paris.

Stenosis of any tube or duct of the body, following syphilitic ulceration, must be attacked on the same lines as those found efficient in the treatment of other commoner varieties of obstruction. Necrosis of bone due to syphilis should be removed when the separation of the sequestrum is accomplished.

Excision of joints where disorganization is complete and pain is severe may be indicated.

Chronic syphilitic ulcers may be scraped or excised.

When drugs have failed to relieve syphilitic growths of the brain, and the site of the lesion can be localized, and is surgically accessible, operation may be attempted. Three interesting successful cases are detailed in Jacobson and Rowlands' "Operations of Surgery."[49]

Sir Victor Horsley would not prolong medicinal treatment for more than two months in such case before deeming surgical interference justifiable.[50]

13.—THE TREATMENT OF CONGENITAL SYPHILIS.

When it is remembered that in congenital syphilis the spirocheta pallida is found scattered throughout every organ and tissue of the infant's body in incredible numbers (Leishman), the harassed soul of the physician cannot but take joy in the well-established clinical fact that infants and children stand mercury well.

Success, too, is to be eagerly looked for in apparently the most hopeless of cases.

In any case of congenital syphilis the parents should be warned that the child's discharges may be infectious to others, and precautions should accordingly be taken. The mother should suckle the infant whenever possible, and on no account should the baby be placed to a healthy wet-nurse's breast.

48 Lancet, December 5th, 1908, p. 1658.
49 Vol. i., p. 359.
50 B. M. J., vol. ii., 1893, p. 1365.

Four grains of the pulvis sodæ et hydrargyri cum creta, G.H.P. (Sod. bicarb. gr. iii., Hyd. cum Cret. gr. i.), may be administered, three times a day, to any infant, however young or delicate. In less severe cases, when the child is not obviously wasted, two grains of the powder may be given, and this is the dosage recommended by Dr. G. F. Still for routine employment.

The powder may, with advantage, be combined with two or three grains of the pulv. cretæ aromat.

If diarrhœa appears, the mercury should be reduced rather than opium administered, for this latter procedure would merely mask one symptom of mercurial overdose. In some cases, however, the importance of not reducing the mercury by the mouth might be manifest, when one-sixth of a grain of the pulv. ipecac. co., t.d.s., might be safely added to the prescription.

The sodium bicarbonate is present in the powder to minimise any irritant action the mercury might have on the alimentary mucous membrane.

The patient should certainly continue this treatment for three months, when this preliminary curative course should be followed by alternating prophylactic courses of one week's treatment and one week's rest, extending over a further period of nine months. The dose during these weekly courses may be reduced to one-half of that given in the three months' course (*i.e.*, gr. i. or gr. ii. of the pulv. sodæ et hyd. cum cret. t.d.s.). If any fresh symptoms of syphilis appear, then the full dose of mercury should be at once resumed and given continuously, but if, on the other hand, no symptoms of the disease be apparent during the last six months of treatment, the infant may be considered cured.

It should be pointed out, however, in deference to Mr. Jonathan Hutchinson's great authority, that he would not prolong the administration of mercury beyond the disappearance of the symptoms, "Regarding it as certain that mercury employed in infancy is attended by much danger to the development of the child's permanent teeth."[51]

If the infant vomits the powders, as some infants will, the liquor hydrargyri perchloridi in doses of ♏v. up to ♏x. may be administered, but is more likely to produce diarrhœa, which may be prevented by the addition of small doses of castor oil, as recommended by Dr. Still in the following formula[52]:—

℞	Liq. hyd. perchlor.	♏x.
	Tinct. opii.	♏½.
	Ol. Ric.	♏v.
	Aq. Anethi....	ad. ʒi. t.d.s.

for an infant six months old.

An alternative method of treatment by inunction, if intelligently carried out, should, perhaps, be the most valuable of the two. Sutherland[53] uses ung. hyd. and lanoline, of each half a drachm, placed on a flannel binder daily, or, better, rubbed into the baby's skin after a hot bath.

51 Jonathan Hutchinson, Syphilis, p. 87, 1887.
52 A System of Syphilis, vol. i., p. 362.
53 The Treatment of Disease in Children, p. 273. 1907.

This line of treatment may be advantageously combined with that by the mouth, if it be desired to increase the dosage of mercury without the risk of gastro-intestinal upset; for apparently the more debilitated the infant, the more its tissues are saturated with the spirochetæ pallida, the better will it stand the administration of mercury.

A third method of treatment which, we should have thought, would be valuable in the treatment of congenital syphilis, namely, that by the daily administration of a mercurial suppository, does not seem to have been tried at all.

The iodides should be given if any signs of tertiary lesions manifest themselves. They are well stood by children.

The general health of the infant must be diligently attended to. The food should be simple and easily digestible. Peptonised milk, albumen water, and raw meat juice may be useful.

Sunshine and fresh air, warm clothing and sleep, all help to restore the little patient's strength.

Cod-liver oil and the syrup of iodide of iron may be given later, in the rest between the weekly courses, to which minute doses of potassium iodide may be added.

If stimulants seem necessary, brandy ʒi. to ʒiii. daily, or the liquor strychnine, ♏i. ter. in die, may be administered.

If the baby be restless and sleepless, potassium bromide gr. v. may be given at night, or if the baby moans as if in pain, $\frac{1}{8}$ to $\frac{1}{4}$ of a grain of Dover's powder should be prescribed twice a day.

A recorded weekly weight of the patient during treatment is easily obtained and useful for reference.

Syphilitic rhinitis should be treated by gentle irrigation with warm lotio alkalina, or hydrogen peroxide, to remove blood, mucous and crusts. The nares should be bathed with lotia nigra, and the entrance protected with a well-diluted mercurial ointment. This treatment should be performed often enough during the day to keep the air passages free for respiratory purposes.

Sores and anal fissures should be gently washed after the passage of a motion, and dusted with a powder of calomel and zinc.

Syphilitic epiphysitis should be locally treated by the application of Scott's ointment, and the fixation of the affected limb.

Syphilitic meningitis and hydrocephalus should be treated with full doses of mercury, to which small quantities of potassium iodide have been added. If this fails, lumbar puncture will probably prove useless, as the primary meningeal effusion collects at the base of the brain, and, forming adhesions, prevents the escape of the cerebro-spinal fluid from the ventricles into the spinal canal. Resource may be now had to trephining, and draining the ventricular fluid away by some such means as the capillary action of catgut.

Later in life, periostitis, gummata, bilateral synovitis, interstitial keratitis, etc., should be treated on the general anti-syphilitic lines already laid down.

A word has still to be said as to the treatment of the pregnant syphilitic mother; mercury in such doses should be certainly given to her in the hope of influencing the child.

If conception and syphilitic infection took place at the same time, it is stated that the prognosis for the infant is improved by the local administration of mercury in the form of a pessary (containing 15 grains of the Ung. Hyd.), in addition to the full general treatment of the mother.

Finally, the parents must be impressed with the necessity of a full year's treatment for the little patient; in order that it may be placed under the best possible condition to overcome its unfortunate inheritance.

14.—Treatment as an Aid to Diagnosis.

If there be doubt as to whether a certain lesion be syphilitic or not, non-specific treatment should be given a fair trial.

If this line of treatment fails, and then the administration of specific drugs effects the desired cure, the diagnosis of syphilis is substantiated.

15.—Summary of the Present-Day Treatment of Syphilis.

As with all present-day treatment, the first word in the treatment of lues is one of prophylaxis, the essentials of which would seem to be temperance, personal cleanliness, self-restraint, and, *par excellence*, universal early marriage.

But when prophylaxis has failed, and syphilis be diagnosed, the line of treatment at present recommended by Colonel Lambkin and Major Ward at the Military Hospital, Rochester Row, should, if possible, be instituted.

Firstly, to cure the active symptoms of the disease, a full 100-grain course of mono-sodium para amino phenyl arsonate ("soamin") should be prescribed, ten grains being injected every other day for ten injections.

A month's rest should now be allowed before entering on a full two years' course of Lambkin's metallic mercury cream, injected intramuscularly as described in detail above.

This mercurial course may be looked upon as a prophylactic measure against future relapses, until such time as our knowledge of the preventive powers of the arylarsonates is more perfect.

The second series of mercurial injections (*vide* p. 203) may be replaced by a second 100-grain course of sodium; whilst with the third series of mercurial injections, a course of Merck's Iodopin (20 c.c. every other day for five injections) may be combined with advantage.

After this twenty-seven months' treatment without further evidence of the disease, the patient may be regarded as cured, but before marriage he should undergo another short "safety" course of soamin or mercury, as insisted upon by the foreign syphilologists.

If, for any reason, the above plan of treatment by injection cannot be carried out, mercurial medication by the mouth is the most practical alternative.

If a rapid mercurialisation of the patient be deemed advisable, intramuscular injection of the soluble mercurials may be supplemented, if necessary, by the administration of mercury per os, or either of these methods may be combined with inunction, or the intravenous method of Mr. Ernest Lane may be practised.

As an alternative to the arylarsonates in debilitated syphilitics, Zittman's treatment is available.

The local care of syphilitic sores and ulcers should be diligently seen to, whilst the general treatment of the syphilitic patient should receive the attention it always deserves.

Congenital syphilis should be treated intermittently for the space of one year by powders, or better, when practicable, by inunction.

Finally, every patient should be urged, for his own sake, to complete his full course of treatment, and, for the sake of others, to take every precaution in his power which may prevent the spread of his unfortunate infection.

The Special Value of the Present-Day Treatment of Syphilis in Prophylaxis and in Prevention of Recurrence.

The present-day treatment of syphilis has three objects in view; firstly, the healing of the manifest lesions of the disease; secondly, the prevention of relapses in the infected patient; and, thirdly, the arrest of the spread of the disease to other individuals.

Now, the rapid healing of the superficial lesions of syphilis—in the discharges from which we know the spirochæta pallida is constantly present—must be a powerful factor in the prophylaxis of the disease. Wherefore efficient treatment, both by bringing about this desirable rapidity of cure, and by the sterilization of the infectious discharges by local applications, cannot but be of the greatest service alike to the individual and the community.

Moreover, the efficient present-day treatment of syphilis must make itself felt in the reduction of the appalling loss of infant life in child-bed, and, later, in the diminution of the number of those who develop signs of congenital syphilis. How great this loss of life is may be gathered to some extent from the following interesting figures given by Dr. G. F. Still :—"There were 39 still-births, 36 miscarriages, and 25 deaths attributable to congenital syphilis in the family histories of 87 children who were under treatment for congenital syphilis; moreover, out of these 87 children, 13 died whilst under observation."

With regard to the prevention of recurrence, Major Ward says that the two years' course of intramuscular injections — as practised at many of our Military Hospitals—will almost with certainty render the young soldier immune to relapses of the disease during his military life (that is, for the space of twelve years). As to the patient's after-history he cannot speak with authority; but he believes that in by far the great majority of cases this immunity persists throughout life.

The outcome, then, of an almost incredible amount of work, spread over centuries, has at the present day evolved an efficient method of treatment for this ancient protozoal disease.

We can but look for the future to make the application of this treatment compulsory by law to every person suffering from syphilitic infection, and thus crown a therapeutical triumph with a prophylactic diadem.

Preparations Received.

"Cofectant."

The qualities which go to the making of the ideal disinfectant have been often described, but never all realised in a single preparation. Innumerable preparations have been put on the market, many of them supported by the most extravagant claims. On the other hand, there are many reliable preparations obtainable, and among them is the new disinfectant with the curious registered name "Cofectant," which is manufactured by Messrs. Edward Cook & Co., Ltd., the well-known firm of soap makers. We have received a sample of this preparation, which is sold in bottles containing sufficient concentrated fluid to dilute to twenty gallons, at 10½d. It emulsifies readily with water in all proportions; it has a high co-efficient tested by the Rideal-Walker method against *B. Typhosus*, and the makers claim that this co-efficient is always maintained. It is highly concentrated, and therefore convenient for use in the sick room, or in stables, kennels, etc., in fact, in any place where a safe and reliable disinfectant is nowadays a necessity.

Bendle's Meat Port (Nutrovin).

We have received from Messrs. Bendle, Ltd., of Seething Lane, a sample of their Meat Port, which is described in the accompanying literature as a nutritive and stimulating preparation. Many other meat wines on the market are also so described, though the majority of them contain no protein, but merely meat extractives which, "as every schoolboy knows," are stimulants, and not nutrients. "Nutrovin," however, justifies its claim to nutritive qualities. The addition of bromine water to the wine results in the formation of an abundant curdy precipitate. The addition of tannin, or of another port wine containing tannin, produces an abundant precipitate. The wine is made in two standards; predigested meat-substance is added in the proportion of seven and fourteen per cent. respectively, and the result is a preparation of excellent flavour, agreeable to the palate, and only slightly suggestive of the presence of meat substance. In the presence of so large a proportion of proteins, it is obvious there can be no quantity of tannin such as is contained in ordinary port; this is removed by a special process, and the acidity of the original wine is also considerably reduced. We are convinced that "Nutrovin" is a reliable preparation, and it is probably of value in cases of convalescence from debilitating illnesses where a nutritive port is desired.

Sport.

Cricket.

GUY'S v. SURREY CLUB AND GROUND.

Played at Honor Oak Park on Wednesday, May 12th. Surrey Club and ground had got together a strong team, and winning the toss, went in and knocked up the useful score of 316. Guy's, on going in to bat, fared badly, and the whole side only realised 125 runs; the reason for such a poor display is difficult to find, on a hard and fast wicket, too!

SURREY CLUB AND GROUND.

T. C. Stafford, b Kahlenberg	11
Harrison, lbw, b Kahlenberg	1
Goatly, b Rice	94
S. R. Beresford, c Munden, b Rice	7
Davis, c Sampson, b Rhys Evans	62
Platt, b Rhys Evans	0
Blacklidge, lbw, b Wyatt	41
F. Odell, not out	50
Abel, c Andrew, b Kahlenberg	3
Windybank, c Rice, b Wyatt	6
Rushby, b Rhys Evans	9
Extras	32
Total	316

GUY'S.

C. H. Medlock, c Abel, b Rushby	8
M. M. Munden, b Harrison	8
R. Montgomery, b Davis	17
G. Andrew, b Platt	22
H. D. Wyatt, c and b Platt	8
W. C. Miller, b Abel	2
F. Kahlenberg, b Platt	12
P. S. Humm, b Abel	0
B. F. Sampson, not out	24
C. E. Rice, c Stafford, b Abel	0
D. Rhys Evans, run out	0
Extras	24
Total	125

GUY'S v. SEVENOAKS.

Played at Sevenoaks on Saturday, May 15th, and resulted in a win for Sevenoaks. Unfortunately, Guy's had to take down a weak team. The weather was again very cold, which was some excuse for the one or two dropped catches. Sevenoaks had matters pretty much their own way in batting, but, thanks to some good bowling by Montgomery, their innings was eventually brought to an end.

GUY'S.

C. H. Medlock, c & b Page	21
M. M. Munden, c Grayley, b Page	2
R. Montgomery, b Grayley	0
A. H. Birks, c Richardson, b Page	23
G. Andrew, c Richardson, b Grayley	2
W. C. Miller, c Cross, b Grayley	9
W. H. Counsell, b Page	3
P. S. Humm, b Grayley	7
C. E. Rice, c Richardson, b Grayley	1
B. F. Sampson, not out	5
D. Rhys Evans, c MacLeod, b Page	0
Extras	4
Total	77

SEVENOAKS.

G. F. Sills, b Montgomery	8
J. Adamson, c & b Andrew	91
J. S. Richardson, c & b Humm	56
H. F. Cross, b Miller	0
C. C. MacLeod, c Montgomery, b Munden	38
T. Page, c Sampson, b Birks	42
A. Martin, b Montgomery	10
Grayley, not out	5
W. Francis, c Andrew, b Montgomery	1
F. Smith, c Munden, b Montgomery	3
T. Sills, b Montgomery	10
Extras	22
Total	286

GUY'S v. REIGATE.

Played at Reigate, Saturday, May 22nd, and resulted in a win for Reigate by two runs. Guy's won the toss, and started batting on a fairly good wicket. Runs came slowly, and by lunch time six wickets were down for 129 runs. When Reigate went in to bat matters at first looked hopeful, but towards the close the game became very exciting, Reigate eventually just winning as above. Scores:—

GUY'S.

C. H. Medlock, c Neale, b Budgen	79
H. Archer, c Brooker, b Barrett	4
M. M. Munden, b Budgen	2
G. Andrew, c Linnell, b Neale	14
A. H. Birks, c Gibbardt, b Barrett	1
W. C. Miller, c Roberts, b Budgen	11
F. C. Hunôt, b Barrett	2
F. Kahlenberg, b Barrett	17
B. F. Sampson, b Budgen	0
C. E. Rice, not out	1
S. E. Rhys Evans, c Linnell, b Barrett	1
Extras	7
Total	139

REIGATE.

Captain C. H. Neale, b Kahlenberg	11
H. Brooker, c Sampson, b Rice	10
N. S. Linnell, c Archer, b Sampson	37
S. W. Neale, c Medlock, b Rice	16
H. Budgen, c and b Sampson	18
M. D. Rutley, c Birks, b Sampson	0
F. Nightingale, b Sampson	1
J. Nightingale, st Birks, b Sampson	9
R. Gibbardt, b Sampson	6
C. E. Roberts, b Kahlenberg	0
R. Barrett, not out	12
Extras	21
Total	141

Lawn Tennis.

GUY'S v. CAIUS COLLEGE, CAMBRIDGE.

This match was played at Cambridge on Saturday, May 15th, when the hospital were defeated by seven matches to one, one being left unfinished. Result:—

H. Chapple and R. Curle lost to H. C. Attwood and G. E. Dyas, 2–6, 3–6; lost to G. T. C. Watt and O. R. Arnell, 10–12, 1–6; lost to L. A. Graham and G. Stone, 3–6, 4–6.

H. Sharpe and A. S. Roe lost to Attwood and Dyas, 5–7, 7–5, 5–7; drew with Watt and Arnell, 6–5, 7–9; beat Graham and Stone, 5–7, 7–5, 6–4.

V. T. P. Webster and H. Lee lost to Attwood and Dyas, 2–6, 2–6; lost to Watt and Arnell, 1–6, 2–6; lost to Graham and Stone, 4–6, 0–6.

GUY'S "A" v. WOKING.

This Surrey County Junior Cup Tie (first round) took place on Saturday, May 15th, and resulted in a win for the hospital by 5 matches to three, one being left unfinished. Result:—

G. C. Covell and G. H. Hunt beat Henderson and Wheatley, 6–3, 6–3; beat Gabriel and Somers Lewis, 12–10, 2–6, 6–2; beat Cox and Pen, 6–2, 6–4.

L. Price Harris and E. P. Poulton drew with Henderson and Wheatley, 7–5, 1–6, 7 all; lost to Gabriel and Somers Lewis, 4–6, 4–6; beat Cox and Pen, 6–3, 6–4.

H. L. S. Griffiths and R. Lucas lost to Henderson and Wheatley, 5–7, 4–6; lost to Gabriel and Somers Lewis, 2–6, 4–4 retired; beat Cox and Pen, 0–6, 6–4, 6–2.

GUY'S v. Mr. J. GANZONI'S VI.

This match took place on Wednesday, May 19th, at Honor Oak Park, and resulted in a win for the visitors by six matches to three. Result:—

H. Sharpe and A. S. Roe lost to R. S. Barnes and Brame Hillyard, 5–7, 2–6; lost to F. S. Warbury and J. Ganzoni, 1–6, 7–5, 4–6; beat M. G. Holmes and L. Holland, 6–1, 6–2.

R. Curle and L. Price Harris lost to R. S. Barnes and Brame Hillyard, 1–6, 1–6; lost to F. S. Warbury and J. Ganzoni, 0–6, 0–6; beat M. G. Holmes and L. Holland, 6–4, 8–6.

G. C. Covell and G. H. Hunt lost to R. S. Barnes and Brame Hillyard, 2–6, 5–7; lost to F. S. Warbury and J. Ganzoni, 3–6, 6–8; beat M. G. Holmes and L. Holland, 6–4, 6–4.

GUY'S v. KENT.

This match took place at Honor Oak Park on Saturday, May 22nd, and resulted in an easy win for the Hospital by eight matches to one. There were four walk-overs for us, owing to one of their second pair being unfortunately overcome by the heat. H. Chapple and A. S. Roe were unable to play. Result:—

H. Sharpe and R. Curle beat Captain Kemble and A. H. Colquhoun, 6–8, 8–6, 6–2; beat C. E. Cousins and A. H. Stewart, retired; beat E. H. Osmund and R. J. Osmund, 6–1, 6–3.

G. C. Covell and G. H. Hunt beat Kemble and Colquhoun, 8–6, 3–6, retired; beat Cousins and Stewart, 6–3, 2–6, retired; beat Osmund and Osmund, 6–0, 6–4.

L. Price Harris and J. A. Ryle beat Kemble and Colquhoun, retired: beat Cousins and Stewart, retired; lost to Osmund and Osmund, 3–6, 5–7.

Papers by Guy's Men.

William Bligh, M.D., B.S. Lond.: Two Cases of Traumatic Separation of the Upper Mandible.—*The Lancet*, 15th May, 1909.

A. E. Boycott, M.D., B.Ch. Oxon., and C. Gordon Douglas, M.B., B.Ch. Oxon.: Observations on a Chlorotic Anæmia in a Rabbit, and on Transfusion by the Carbon Monoxide Method.—*Journal of Pathology and Bacteriology* for April, 1909.

John W. H. Eyre, M.D., and E. P. Minett, M.D.: The incidence of Morgan's Bacillus No. 1 in the Normal Fæces of Young Children.—*British Medical Journal*, 22nd May, 1909.

W. Hale White, M.D. Lond., F.R.C.P. Lond.: A Clinical Lecture on Empyema.—*The Clinical Journal*, 26th May, 1909.

E. E. Henderson, M.B., B.C. Camb., F.R.C.S. Eng.: An Address on the Diagnosis and Treatment of Some Common Inflammatory Affections of the Eye, from the Standpoint of the General Practitioner.—*British Medical Journal*, 22nd May, 1909.

C. E. Iredell, M.D. Lond., M.R.C.P. Lond., and E. P. Minett, M.D.: Notes on the Effect of Radium in Relation to some Pathogenic and Non-pathogenic Bacteria.—*The Lancet*, 22nd May, 1909.

John D. Malcolm, M.B., C.M., F.R.C.S. Edin.: The Treatment of Shock.—*The Lancet*, 15th May, 1909.

G. W. Nicholson, M.D., B.C. Camb.: A Hypernephroma of the Kidney with Papillomatous Recurrences.—*Journal of Pathology and Bacteriology*, April, 1909.

Owen Richards, M.Ch. Oxon., F.R.C.S. Eng.: Notes on Two Cases in which the Appendix was Present in a Hernial Sac on the Left Side.—*The Lancet*, 15th May, 1909.

Births.

FORSYTH.—On May 22nd, at 85, New Cavendish Street, Cavendish Square, W., to Dr. and Mrs. David Forsyth, a son.

ROBERTSON.—On the 23rd May, at Waihi, Auckland, New Zealand, to Dr. and Mrs. Carrick Hey Robertson, a daughter. (By cable.)

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

June.

Sat. 12. 1st XI. v. The Past (Home).
1st VI. v. Balliol College, Oxford (Away).
2nd XI. v. Hertford College, Oxford (Away).

Mon. 14. Clinical Lecture by Mr. Steward (Laryngology), 1.15 p.m.

Wed. 16. 2nd XI. v. Royal Naval College (Away).
1st VI. v. Mr. W. J. Wilson's VI. (Home).
2nd VI. v. Sidcup "A" (Away).

Thur. 17. Messrs. Symonds and Steward's Take-in (Messrs. Perkins and Wallis).

Fri. 18. 1st XI. v. Bickley and Bromley (Away).
Annual General Meeting of Football Clubs, 4.30 p.m.

Sat. 19. 1st XI. v. Lessness Park (Home).
2nd XI. v. Norbury Park (Away).
1st VI. v. Gipsy "A" (Home).
2nd VI. v. Connaught "A" (Away).

Mon. 21. Clinical Lecture by Dr. Iredell (Actinotherapeutics), 1.15 p.m.

Wed. 23. 1st XI. v. Hampstead (Away).
2nd XI. v. Beddington (Home).

Thur. 24. Messrs. Lane and Fagge's Take-in (Messrs. Leeming and Lee).

Passim.

THE three members of the Council of the Royal College of Surgeons who retire this year by rotation are Mr. A. W. Mayo Robson, Sir W. Watson Cheyne, and Mr. Clement Lucas. We are glad to hear, however, that Mr. Lucas is seeking re-election, and we sincerely hope to see him again successful, and perhaps in the future holding yet higher office in the College. There are six other nominations for the election to fill the three vacancies.

MR. LUCAS, however, is the only Guy's candidate, and we confidently appeal to those of our readers who are eligible to vote, to support him loyally and return him, if possible, at the top of the poll. The election is on July 1st, and we beg all the Guy's Fellows to make a careful note of the date, in order that no votes may be lost through the common cause of inadvertence.

IT is now announced that the concert which has previously been mentioned in these columns as a preliminary step in the launching of a Guy's Operatic Company, to play (and work) in aid of the hospital funds, will be held on Tuesday, July 13th, at the Æolian Hall. We hope that our readers will endeavour to keep this date free, and to make the concert widely known among their friends. The Æolian Hall is one of the most comfortable and convenient West End concert halls, and easily accessible. A very interesting programme is being arranged, which

will include some twelve items from the Savoy operas, and several famous professional artistes have already promised their services.

IT is announced that the Annual Prize Day and Garden Party will be held on Thursday, July 8th, on which occasion his Grace the Duke of Devonshire has kindly consented to distribute the medals and prizes.

THE annual changes among the junior Hospital and Teaching Staff have just been announced. Mr. Digby is appointed Surgical Registrar in place of Mr. Bankart, and Mr. Martyn Lobb Resident Surgical Officer in place of Mr. Daw. Mr. Layton, who now becomes senior Surgical Registrar, has received the appointment of Anæsthetist in the hospital. Mr. Davies-Colley, besides holding the post of Anæsthetist to the Dental Department, is appointed Obstetric Assistant. We may note, in passing, that there has been no new appointment to the full staff in the Obstetric Department since the death of Dr. Horrocks, as the authorities have decided to limit the number of Obstetric Physicians in the future to two. We heartily congratulate Messrs. Digby and Martyn Lobb on their promotion to the Staff, while regretting, in a general sense, that changes are necessary and inevitable.

ONE of the most famous of our Consulting Physicians, Dr. Frederick Pavy, has recently celebrated his eightieth birthday, and we are sure that all our readers will, with us, congratulate him most heartily, not only on the simple fact of his now joining the select company of octogenarians, but still more on the fact that, in spite of his advanced years, he is still hale and hearty, and continues to take his old interest in the progress of medical science. Some of our readers may have noticed in the Library a copy of a clever pastel portrait of Dr. Pavy, by Mr. William Strang, and we understand that copies are on sale and can be obtained from the Librarian. Students may obtain them at a reduced price, and thus have an opportunity of obtaining an excellent souvenir of one of our most distinguished *alumni*. Dr. Pavy, moreover, has repeatedly come to the financial support of the Club Gymnasium, which he was instrumental in founding, and we hope shortly to see a copy of this portrait hanging there.

WE understand that a number of new cases for the papers and magazines in the Club have recently been provided, and we are asked to impress on members the importance of their keeping the papers in good order, and not removing them from the cases, which has been frequently done in the past by the more careless or thoughtless of the members. What is worse, we understand that in several cases papers have "disappeared" from their several cases, and never been seen again. We wish we could convince whoever is responsible for these acts of depredation that such puerility, which we should like to call by a very much worse name, cannot be too strongly condemned. We trust that, in future, all the Club papers will be treated with as much care as the Club copy of the GAZETTE, which we have never found missing or unduly soiled. We know that the Club-hooligan is a ubiquitous personage, but the law-abiding members, who are in an enormous majority, must see that his Vandal instincts are repressed.

WE were glad to hear that Mr. Waldo, during a recent inquest, referred to the absurd anomaly in connection with the fees paid to medical witnesses attending the Coroner's Court, by which hospital doctors receive no fees in respect of attending inquests if the person dies just inside the hospital, but are allowed full fees if death occurs on the hospital steps, although, of course, the witnesses are put to just the same trouble in attending the Court in either case.

SINCE rubber-gloves have become practically universal among us for wearing at operations, quite a serious item of expense has been added to the already sufficiently burdensome liabilities of those who are concerned. We do not wish to incur our readers' displeasure by again referring in "Passim" to the subject of wearing-apparel, but we really fail to see why the cost of the rubber-gloves should not be borne by the hospital, which already provides the rest of the

theatre *toilette*—caps, overalls, etc. In ninety-nine cases out of a hundred, gloves are worn for the patient's sake rather than the operator's, and all expenses in connection with the patient should surely be the concern of the hospital rather than of any private individual.

In a recent number of the *New Zealand Medical Journal* we have come across an interesting paper on "Some Exploded Theories and Forgotten Remedies in Medicine," which was read before the Napier branch of the British Medical Association by Dr. De Lisle, who is an old Guy's man, qualifying in 1871, and now District Health Officer for Hawkes Bay, N.Z. While we cannot agree with all Dr. De Lisle's views, we found his paper exceedingly entertaining, and some of his reminiscences are of special interest to Guy's men. For instance, the following extract shows the light in which the stethoscope, at the time of its introduction, was regarded by the conservative school :—

> "Dr. Owen Rees, who was a lecturer on the practice of physic at Guy's when I was a student, told me that in his student days one physician always came into the wards carrying flowers in his stethoscope, would place it carefully on the table and say : 'There, gentlemen, that is the proper use of the stethoscope, now we will see our patients.'"

And here is another example of such bigotry :—

> "It is difficult to believe in these days, but a cousin of mine was, in 1840, plucked in his examination for the diploma of the London College of Surgeons because he told the examiner that he would not bleed in a case of erysipelas."

And again, the following reminiscence shows how little a medical prophet is honoured in his own country :—

> "In the thirties there was a physician at St. Thomas' Hospital who treated his fever cases much as they would be treated to-day. The students considered that he was an old woman, would not go round the wards with him, and took out their lectures on the practice of physic at the adjoining hospital, Guy's. A gentleman I once knew, who qualified in 1836, told me that he thought himself unfortunate to be appointed clinical clerk to this physician, but observed that he had a smaller death-rate than other members of the Staff, and that while the patients of other men were sitting over the fire spitting, his patients were out of the hospital and at work."

This prompts us to wonder—if there be any prophets among us now—how are we treating them ?

As a matter of fact, in contrast to the old days of medical bigotry and conservatism, we are now witnessing a fashion in the extreme opposite, when anything which is new and "advanced," either in the way of theories or of remedies, is hailed with enthusiasm and pursued with ardour—for a time. Indeed, it is the appearance of your theory which nowadays is accompanied by all the explosion and the excitement ; its disappearance is, rather, a silent process, a gentle decline into the limbo of forgotten things, unobtrusive as the decay of last autumn's leaves.

Pass List.

Final Fellowship Examination.—T. B. Layton, C. F. L. Leipoldt, L. C. Panting.

Royal College of Surgeons of England, May, 1909.—Final Examination for the Licence in Dental Surgery, Parts I. and II. : F. L. Furse, P. R. Helyar, G. H. Rowley, J. A. W. Stuart. Part I. only : F. B. Bull, T. L. Fiddick, C. J. Henry, P. S. Humm, L. J. Kemp, W. C. Miller, C. G. Morris, H. S. Morris, J. M. Pomeroy, A. J. Schaefer, H. Sturton. Part II. only : * C. H. Brangwin, * N. D. Clarke, * A. Cohen, * D. Y. Hylton, * R. C. Morgan, * H. G. Spain, * A. MacDonald Watson.

* Denotes completion of Examination.

University of London.—M.B., B.S. Examination, May, 1909.—Honours : A. H. G. Burton (distinguished in Forensic Medicine and Hygiene). Pass : L. T. Baker, L. Croft, S. J. Darke, T. Evans, F. W. Hogarth, J. L. Johnston, H. C. Lucey, H. E. H. Mitchell, W. P. H. Munden, J. R. Perdrau, W. P. Purdom, R. A. Rankine, St. John A. M. Tolhurst, C. A. Wood. Supplementary Pass List : Group II., P. D. F. Magowan.

Final Conjoint Examination, April, 1909.—Medicine and Surgery : *J. L. Atkinson, *A. C. Shulenberg. *P. C. Field. Surgery and Midwifery : *R. B. Dawson. Medicine only—P. V. G. Pedrick, H. L. Duke, C. H. Crump, C. G. Sprague, V. P. Hutchinson. Surgery only : *C. F. Searle, *E. P. L. Hughes, *H. E. H. Mitchell, *D. Isaacs, *E. R. Stone, *T. F. Brown, C. H. Mills. Midwifery only : S. H. Browning, A. L. Fitzmaurice, Q. H. Richardson, W. S. Kidd, *L. W. Evans, L. K. Edmeades, H. R. Bastard, L. Bromley, H. Steinbach.

*Denotes completion of Examination.

The Annual Report.

MR. BONSOR'S Report for 1908 opens with a brief reference to the past:—

"It will be remembered that the previous Report chronicled the extinction of the then existing debt and expressed the belief of the Governors that the generous recognition which the needs of Guy's Hospital had received in the near past would be continued for its due maintenance, and for the provision of certain extensions and improvements necessary to the treatment and accommodation of patients. The Governors are now very grateful to acknowledge that in the year under review their hopes were justified. Testamentary benevolence more than made up the deficiency in ordinary income, while the current cost of the first of the special works—the New Out-patient Department—now in progress, was met from the Fund to which an anonymous donor and the Council of King Edward's Hospital Fund for London have already contributed the greater proportion of the sum which will be needed.

"Yet with so much ground for satisfaction and thankfulness, the Governors fully recognise that every year brings its necessities, and that continuous effort on behalf of the Charity is required both on their own part and on the part of the public to whom they appeal.

"The Hospital was inspected last July, on behalf of King Edward's Hospital Fund for London, by two members of the Fund, who were received by the Treasurer and his Secretary, the Clerk to the Governors, with the Superintendent, conducted over the wards and various departments of the Hospital, and were good enough to express the satisfaction and pleasure which their visit had afforded them."

The Report then records the changes among the Governors and Staff during the year, which are too familiar to need repetition here. Then follows a general statistical account of the patients treated by the hospital:—

"For a second year the tables appear in the form required by King Edward's Hospital Fund for London, and a complete comparison on this basis is available. During the year the number of beds was increased from 608 to 620, following renovations and improvements in Patience and Samaritan Wards for Septic cases, and in Ruth Ward for Ophthalmic, Ear and Throat cases. On the other hand, the number of In-patients accommodated last year was 8,565, compared with 8,733 in 1907, a reduction due mainly to the longer average stay of the patients.

"Of the 8,565 patients so accommodated, 506 were in residence on the 1st January, 1908, and 8,059 were admitted to the wards during the course of the year. As the result of treatment, 6,841 were discharged as cured or relieved, 490 as unrelieved, and 701 patients died, as compared with a mortality of 689 in 1907. The cases were divided into 2,809 of a Medical, and 5,756 of a Surgical nature, this showing, compared with the previous year, some decrease on the medical side. The number of beds in daily occupation rose from 515·2 to 529·8, the average mean residence of patients in the Medical Wards being 37 days, and in the Surgical Wards 18·3 days, an increase already referred to, and which occurred under both heads. Cases of accident taken into the wards and included among the Out-patients numbered 1,228 against the record number of 1,309 in 1907. Of these sufferers 86 died in Hospital."

The average cost of each in-patient per week, and the average total cost of each in-patient, is shown in the following extracts from the Statistical Tables:—

	Average cost of each In-patient per week. £ s. d.
MAINTENANCE:—	
Provisions	0 9 4·6
Surgery and Dispensary	0 2 9·9
Domestic	0 6 10·2
Establishment	0 4 4·5
Salaries, Wages, etc.	0 13 9·1
Miscellaneous Expenses	0 0 7·2
ADMINISTRATION:—	
Management	0 1 2·8
Finance	0 0 4·7
Average Total Cost of each In-patient per week	1 19 5
Average Total Cost of each In-patient	6 15 3

Turning to Out-patients, the Report states that they increased in number from 131,138 to 132,288. This figure included 83,638 Casualty Patients.

The Annual Expenditure on Out-patients falls under the following heads, and the average cost of each Out-patient attendance is also given:—

	Expenditure on Out-Patients in 1908. £ s. d.	Average Cost per Out-Patient Attendance in 1908. s. d.
MAINTENANCE—		
Provisions (including Board of Officials)	642 6 8	0 0·34
Surgery and Dispensary ...	3,491 14 6	0 1·88
Domestic	560 0 3	0 0·30
Establishment	59 9 7	0 0·03
Salaries and Wages... ...	3,391 1 8	0 1·82
Miscellaneous	145 1 3	0 0·08
ADMINISTRATION—		
Management	147 10 5	0 0·08
Finance	nil	0 0·00
Average Total Cost per Out-Patient Attendance		0 4·53
Average Cost per Out-Patient		1 3·31

The various categories into which the Out-patients fall are given below, with the figures for 1907 by way of comparison :—

OUT-PATIENTS.

	Numbers in 1907.	Numbers in 1908.
Patients in Surgery Registers ...	94,086	99,788
General Out-Patients—		
Medical	14,912	12,733
Surgical	7,847	6,853
Special Departments—		
Dental—Extractions	7,690	6,023
Conservative Treatment	5,447	5,228
Obstetric	1,740	1,758
Ophthalmic (Mr. Eason) ...	3,919	3,448
(Mr. Ormond) ...	2,322	2,156
Aural	1,782	1,652
Skin	3,980	3,807
Throat	2,108	2,115
Orthopædic	113	370
Maternity Patients	3,704	3,679
Total	149,650	149,610

"There is nothing calling for comment from a comparative standpoint, but the growth of the new Orthopædic Department will be observed."

FINANCE.

Under this important heading, the Report has this satisfactory statement to make :—

"As in the previous year, the Income and Expenditure Account shows a balance on the right side. The total income, Ordinary and Extraordinary (excluding the Re-endowment Fund and the New Out-patient Department Fund), amounted to £71,488 0s. 6d. ; total Ordinary Expenditure to £65,775 15s. 9d. ; and, there being no Extraordinary Expenditure on this account, the balance was placed to the credit of capital. It will, however, be observed that this gratifying state of solvency was again due to the help received through legacies.

"The total income above mentioned was made up as follows :—From property under the Founder's will, £28,639 19s. 6d. ; Dividends from the Re-endowment Fund, £9,348 11s. 2d. ; King Edward's Hospital Fund for London, £7,500 ; Ordinary Donations, £4,621 17s. 1d. ; Annual Subscriptions, £3,465 5s. ; Hospital Sunday Fund, £1,575 ; Hospital Saturday Fund, £250 9s. ; Legacies for general purposes, £8,617 16s. 2d. ; Patients' payments, £5,292 3s. 1d. ; Nurses' and Probationers' Fees, £1,274 10s. 9d. ; Return of Income Tax, £508 19s. 11d. ; Sundry Receipts, £399 8s. 10d.

"Contrasting these items with those of 1907, it may be noted that the total of Ordinary Income in last year, £62,870 4s. 4d., corresponds almost exactly, a serious diminution in revenue from the Founder's Estates being counterbalanced by the larger and most generous annual grant from King Edward's Hospital Fund. The reduction in revenue referred to is partly a consequence of the depressed condition of the hop trade, resulting in a loss of tenants for the warehouses which constitute the principal part of the Hospital's Southwark Estate, at one time, perhaps, our most reliable source of income. Extraordinary Income, consisting entirely of legacies, £8,617 16s. 2d., compares poorly with the £31,463 19s. 5d. received in 1907, but that of course must be regarded as an exceptional year."

So much for the sources of income.

"The expenditure side of the account worked out to a very normal result, the total Ordinary Expenditure for the year being, as already stated, £65,775 15s. 9d., compared with £64,954 18s. 6d. in 1907. A considerable increase in the item of Renewals and Repairs received compensation on the balance of other fluctuations in prices and quantities. No Extraordinary Expenditure appears in the general account."

The Report next deals with two special funds :—

"In addition to the foregoing survey of normal incomings and outgoings, it is a grateful duty to refer to the Re-endowment Fund and the New Out-Patient Department Fund. The first of these funds, it may be useful to recall, was instituted, with the support of His Majesty the King, in 1896 for the purpose of replenishing the depleted endowment of Thomas Guy ; £500,000 was appealed for, and at the close of 1908 the amount received, as represented by investments at cost, was £281,421 5s. 5d., the Fund having benefited during the year to the extent of £6,003 3s. 3d.

"The Governors are very sensible of the support which the Re-endowment Fund has received from friends in sympathy with the object of promoting the permanent stability of the Foundation for the benefit of future generations, and they trust that the full attainment of the Fund, by means of the continued endowment of beds and cots, may not be far distant.

"It only remains under the head of Finance to deal with the New Out-Patient Department Fund. The task is simple. Those interested will recall that the preceding Report set out the need of the work, and how that an anonymous donation of £10,000 had been received towards the object, and the promise from King Edward's Hospital Fund of a further £10,000. The latter sum came to hand during the year, and the Fund so created has more than sufficed for progress to date."

After some particulars of the nursing staff administration, the Report goes on to deal with the progress of the New Out-patient Departments, "a work comprehensive in character, and affecting the organisation and efficiency of the hospital as a whole, which was commenced in January, 1908, and is being rapidly carried through, partly by the Hospital Works' Staff and partly by Messrs. Cubitt & Co., Contractors. It is anticipated that full effect will have been given to the scheme by October next, and a full description of the improvements and extensions will be included in the next Annual Report, when, being complete, they will be likely to receive a better appreciation than could be the case now.

"Among the general works and improvements carried out during the past year have been the renovation of Patience and Samaritan Wards for septic cases, with the incidental addition of seven beds ; the completion of the

renovation of Ruth Ward; the renovation of Barnabas Ward (these being Ophthalmic, Ear and Throat Wards), and the provision of a new Theatre for Ophthalmic operations, and a separate Theatre for Throat and Ear operations. Five beds were added to Ruth Ward, increasing the total number of beds in the Hospital to 620."

Then follow some statistics of the work of the Power Station and Laundry:—

"In the course of the year the Central Station supplied 317,611 units of electricity at 1·1093d. per unit, as compared with 296,320 units at 1·1656d. per unit in 1907; and pumped 28,211,500 gallons of hard, softened, and drinking water at 5·0157d. per 1,000 gallons, the balance of 6,886,250 gallons being drawn from the Water Board.

"In the Laundry 1,209,960 pieces were washed for patients, nurses, and the general requirements of the Hospital, or an average of 23,268 pieces per week, a very considerable increase on the number for last year."

Particulars of the progress of the Medical and Dental Schools are given, but need not be mentioned here, as they are already familiar to our readers. Considerable interest, however, attaches to the concluding section of the Report, headed

THE FUTURE.

"The Hospital of Thomas Guy is at all times, as Mr. Gladstone wrote some fourteen years ago, performing a work of 'elementary necessity,' benefiting the individual sufferer and rendering not less important services to the public as a place of education and research.

"Upon these grounds the Governors base the claim of the Charity to due and continued recognition of its needs. The first of these needs is an income sufficient to meet those ordinary expenses which are as common to a Hospital as to a household, and in this respect the difference between assured income and the minimum possible cost is a matter for unabated concern. Secondly, there are the renovations, developments, and improvements inevitable from time to time in the life of a progressive Institution, and the Governors commend for generous consideration the following needful works: (a) Separate Wards for Children; (b) Increase of Beds for Special Departments; (c) Re-building of Clinical House; each and all of which would be of lasting utility to the Hospital, and could conveniently be carried through as parts of a single scheme at a cost of about Sixty Thousand Pounds."

An Appendix to the Report embodies an appeal for the endowment of medical education and research, which is one of the most pressing needs of the School at the present time, and will be referred to again in these columns.

As a whole, the Report records a year of steady progress, not marked by any extraordinary changes and, happily, free from financial embarrassments. As regards the coming year, much has been heard on all sides about the adverse effect of Mr. Lloyd George's Budget on Charities of all kinds, but, for our part, we do not believe that the hospitals will be the first to suffer. The possibility, however, of financial difficulties, either in the immediate or distant future, emphasizes the importance of the Re-endowment Fund, which, as mentioned in Mr. Bonsor's Report, was founded in order to place the endowment of the hospital on a firm and satisfactory footing.

Pros and Cons of Vivisection.*

IN dealing with a controversial subject such as Vivisection, it is of the utmost importance, if words and arguments are to have their due effect, to take as broad-minded a view as possible.

Any partisanship expressed or suggested tends to raise prejudice in the mind of the reader.

The difficulty in an extremely technical subject, such as the present, is aggravated by the fact that the data on which sound judgment can be formed are only known to the experts on one side or the other; and so it is left to extremists to fight the issue out before an unenlightened public, this very public to be the judge in a matter which they must fail to understand. In such cases it is only a question of reading the extremists' views on both sides for the layman to experience that unsatisfactory vacillating state we must all of us have experienced at one time or another when reading the pros and cons as expressed by the prejudiced experts.

The treatment of such a subject by a scientist with that rarest of all gifts, a perfectly balanced mind, is the obvious solution to the difficulty, yet the difficulty of finding such a one is necessarily very great.

Professor Richet, one of the best-known French physiologists, has undertaken this task by writing a small popular book, entitled "The Pros and Cons of Vivisection," to which Professor Halliburton has written a preface. There is, however, a great difference in the spirit in which the preface and text have been written.

The preface is plainly written by an enthusiastic vivisector, who, while bringing forward all the reasons comprehensible to a lay mind in support of vivisection, does not admit or even suggest the validity of any of his opponents' arguments.

On the other hand, the spirit in the text of the book itself is almost at the other extreme.

* "*Pros and Cons of Vivisection.*" By Dr. Chas. Richet, Professor of Physiology in the Faculty of Medicine, Paris. Preface by W. D. Halliburton, M.D., F.R.S. (Duckworth & Co.)

Professor Richet has spared no pains in collecting all the arguments, trivial and potent, of the anti-vivisectors, and has dealt with them in a masterly way; though we are inclined to think that he has attached too great an importance to many of their contentions, and has at times been too ready to compromise.

Looking at the subject a little more closely, it must be understood that the book is a popular one, written, as it should be, for the general public.

The preface is in this respect admirable, and Professor Halliburton has been remarkably successful in explaining such important points as the value of serum treatment, opsonins, and anti-toxins in language that no one of average, or even less, intelligence should have any difficulty in following.

We notice, however, one remark with which we cannot agree. On p. xix, he says, "Typhoid fever is an example of a disease which has only died out in this country quite recently. When I was a student the hospital wards were full of it; but to-day most medical students in London pass through their entire curriculum of five years or more without ever seeing a case."

It is, of course, quite true that typhoid fever is very much less prevalent than it was, say, twenty years ago, but at the same time it seems from our experience at Guy's a mistake to say that most students never see a case in the wards. We may be particularly fortunate at Guy's (from an academic point of view), but it is probable that most students see two or three cases during their six months in the medical wards.

This is a non-essential point, but it is just such a one as this that delights the heart of an anti-vivisection enthusiast, and it is for that reason a pity that the writer of the preface should have expressed himself in exactly those terms.

With regard to the book itself, we have little adverse criticism, but much praise, to offer.

The book is divided into chapters, each of which deals with a special aspect of the subject, and the whole, combined, forms an acutely reasoned argument.

Professor Richet has, in a few pages, dealt with all the valid arguments of the anti-vivisectors, and has ranged from the practical questions, such as in what particulars Humanity has benefited by vivisection experiments, etc., to a discussion of the moral aspects of vivisection from an absolute point of view.

The author has dealt gently, yet firmly—very firmly—with the ignorance of many anti-vivisectionists, and has, we think, laid valuable stress on this fact, *i.e.*, their want of accurate knowledge on the subject, for it is in large measure due to misleading statements and sensational accounts that the anti-vivisection propaganda has received the attention of the public.

Professor Richet, however, holds extreme views for a physiologist, and we think that few, and certainly not the majority of English physiologists, would agree with him when he says that no experiment should be performed on animals that cause such animals suffering, and in this respect it seems at first sight as though Professor Richet were making too great concessions to his opponents.

He is careful to explain, however, that it is only his own feelings from the moral standpoint on which that opinion is based, and that every physiologist should be left to decide for himself on such matters; and herein lies the crux of the position, for were the anti-vivisectionists to have their way, and were legislation carried to the extreme they wish, all experimental initiative would be paralysed and scientific progress stopped.

To those interested in this subject the closely-reasoned argument of Professor Richet cannot fail to appeal, and the book deserves to be read in the same broad-minded spirit as that in which it is written.

Chapel News.

At the Annual Meeting of the Congregation held on June 10th, 1909, the following Annual Report of the Chapel Committee was presented:—

The Chapel Committee have pleasure in presenting the following Report for the year ending Easter, 1909.

There has been no alteration in the ordinary Chapel services, but at the desire of a few it has been arranged to hold a half-yearly service in connection with the Guild of St. Barnabas. The first of these services, to be held in May and November, took place on May 28th.

In June of last year the Rev. A. Lethbridge resigned his appointment as Acting Chaplain, and left to take up his work as Vicar of St. Margaret's, Leicester. How great a loss the Hospital has suffered through his departure is well known to all who came in contact with his remarkable personality.

In October last the Rev. W. A. Dunn, Assistant Chaplain, was appointed Acting Chaplain, and his place was filled by the Rev. A. Handel Smith, who has returned to England after many years' work at St. Thomas' College, Colombo.

In September, Mr. Talfourd Jones coming to the end of his term, Mr. H. Depree was appointed Organ Scholar in his place.

The members of the Students' Choir have done good work for the Chapel during the year. A new and successful venture was attempted at Easter, some selections from the Messiah being sung after evening service.

At the last annual meeting of the Congregation permission was given to make use of the balance of the Chapel Fund in order to erect two more Mosaics; this work has been carried out, and representations of Mary and Martha of Bethany have been placed upon the South wall of the Chapel. Two only remain now to be added in order to complete all the panels in the Chapel itself.

A second private Communion set for use in the wards was bought by sanction of the Chapel Committee, and has been in constant use during the year. Several valued gifts have been made to the Chapel during the past twelve months. Through the kindness of two friends a second set of brass ornaments for use at ward celebrations was presented at Christmas. An Altar book, handsomely bound in morocco and most conveniently arranged for use, has been presented anonymously. A silver Chalice and Paten, beautifully designed by the Guild of Artificers, has been given in memory of the late Sir Thomas Stevenson by members of his family. The Chalice is delicately worked, and studded with precious stones; it has upon its stem six enamels, three of which bear the Hospital Arms, and the other three suitable designs; round the base is the following inscription:—"To the glory of God and in memory of Sir Thomas Stevenson, M.D., Knight, Faithful Son of the Hospital." Both the Altar Book and the Chalice and Paten were used for the first time on Easter Day. The Committee wish to record their gratitude to all who have in this way enriched the Chapel by their gifts.

It is intended to add the name of the late Dr. Horrocks to the list of the names on the walls of the Chapel. Although his resignation was received a week or two before his death, he may be truly said to have died in the Medical Service of the Hospital.

The Committee desires to express its best thanks to those Clergy who kindly preached at the Special Advent and Lent Services, and also to those Members of the College of St. Saviour who gave valuable help between June and October of last year.

Appointments.

Civil.

ERRATUM—Mr. F. J. WHEELER was appointed House Surgeon to the East London Hospital for Children, Shadwell, E., and not Resident Medical Officer, as stated in our last issue.

Military.

ROYAL ARMY MEDICAL CORPS.—Lieutenant W. H. S. BURNEY is seconded for service with the Egyptian Army, April 1st.

TERRITORIAL FORCE, ROYAL ARMY CORPS.—1st Northern General Hospital. To be Captain: A. PARKIN.

Dental News.

THE Annual General Meeting of Guy's Dental Society was held on Thursday, May 27th, with the President, Mr. Spiller, in the chair, Mr. Pearce being also present.

The minutes of the last meeting having been read and confirmed, the Secretary read his Annual Report.

The President then stated that the Casual Communication Prize is to be awarded to Mr. H. E. Shepherd. He (the President) regretted that he was unable to announce the decision of the judges as to the best paper read before the Society during the last year.

The officers for Session 1909–10 were then elected. Messrs. E. P. Hudson and Norman Warner were chosen as scrutineers, and the following is the result of the ballot.—President: Mr. H. P. Aubrey. Vice-Presidents: Messrs. M. F. Hopson, J. Lewin Payne, E. B. Dowsett, W. M. Mollison, F. J. Pearce, and J. E. Spiller. Hon. Secretary: Mr. S. W. Charles. Dental Correspondent to the GAZETTE: Mr. Norman Warner. Three Members of Committee: Messrs. F. B. Bull (the retiring Secretary), G. E. Rowstron, and E. P. Hudson. Two more Members are to be elected in October, representing the two entries for 1909.

The proceedings ended with a short speech from the President, in which he expressed his thanks to the Society in general, and to the late Secretary in particular, for the loyal way in which they had supported him during his term of office.

We have much pleasure in congratulating Messrs. H. E. Shepherd and C. J. Henry on obtaining the prize and certificate respectively in Operative Dental Surgery.

We hear that Mr. Cohen, who is now busily selecting his dental kit, is shortly sailing for the Cape, where he intends practising.

We wish him *bon voyage*, and every success for the future.

Papers by Guy's Men.

S. E. Denyer, C.M.G., M.D. Cantab., F.R.C.S. Eng.; A Fatal Case of Acute Volvulus of the Ileum.—*British Medical Journal*, 29th May, 1909.

W. Hale White, M.D. Lond., F.R.C.P. Lond.: The Results of a Year's Use of Vaccines in General Medicine.—*The Lancet*, 5th June, 1909.

L. A. Parry, M.D., B.S. Lond., F.R.C.S. Eng.: Some Points of Medical Interest in the new Children's Act.—*The Practitioner*, June, 1909.

Vaughan Pendred, M.D. Durh., F.R.C.S. Eng.: Enterospasm: Operation: Death.—*British Medical Journal*, 29th May, 1909.

R. P. Rowlands, M.S. Lond., F.R.C.S. Eng.: Some Points in the Treatment of Simple Fractures, with an Illustrative Case (Illustrated).—*The Practitioner*, June, 1909.

The Treatment of Urethral Stricture.

CLINICAL LECTURE BY MR. SYMONDS.

II.*

GENTLEMEN,—In my previous lecture I dealt with a case of urethral stricture of long standing complicated with cystitis and perineal fistula. It was, moreover, a stricture through which a catheter could be passed—a permeable stricture. I pointed out why dilatation by catheterism failed, and discussed the choice of operation and particularly the advantages of that selected.

I thought that to-day our time would not be ill-spent in discussing the whole question of the treatment of stricture.

We must begin with a classification of stricture, and for the purposes of treatment I think the best is a clinical classification founded upon the question as to whether or not a catheter can be passed, for the choice of treatment will turn upon this fact.

A stricture through which a catheter can be passed may be called permeable, the reverse impermeable. Let me make it quite clear that these terms refer to the passage of a catheter and not of the urine, for a patient may pass his water, but you may be unable to introduce a catheter.

We will adopt, then, the classification *permeable* and *impermeable*.

A stricture may also be classified as to form and extent; thus the obstructing medium may occupy but a very small length of the canal and project as a web, band, diaphragm or bridle, and is called "linear;" the deposit may cause a ring-like narrowing, as in this specimen, which looks as if a string had been tied round the canal. Here the stricture is greatest at one point, and is called *annular*.

Again, the stricture may be long and tortuous, the obstructing deposit varying in degree so as to lead to more than one point of greatest obstruction. The density of the deposit is spoken of as cartilaginous; hence the name *tortuous* or *cartilaginous* stricture.

It is well to bear these anatomical conditions in mind in undertaking the treatment of a stricture. For instance, a linear stricture is best dealt with by incision, for it will relapse after full dilatation by catheter, and even by sounds. The annular is of all the most suitable for gradual dilatation, while the tortuous is apt to recur after this method, as indeed it will after any method, unless dilated from time to time as described in the last lecture.

To this anatomical classification must be added the complicated stricture, viz., that with one or more sinuses, and the condition where two or more obstructions exist with an interval of healthy canal—multiple strictures.

Again, a causal classification may be made. Here we should set down as the most frequent, gonorrhœal infection; next injury, or the traumatic variety. This last is due to partial or complete rupture of the urethra from falling astride a beam, or from a kick in the perineum. It differs from the gonorrhœal form in being cicatricial. Injury from an impacted calculus, especially if vigorous attempts be made to extract with forceps, may also result in stricture, and there is in the ward at present a man of 27, where there can be little doubt that the stricture has been caused by attempts at catheterism for the relief of retention due to an overlooked calculus. And we must not lose sight of the fact that forcible catheterism in an existing stricture may do great harm, may perforate the mucous membrane, produce false passages, etc., and so make the stricture much worse.

Lastly, there are a few cases of congenital narrowing, and Sir H. Howse used to hold the view that a stricture of the penile portion might be caused by a chancre.

Returning to the classification selected as forming a better basis for the discussion of treatment, we may set down our case in the following way:—

I.—*Permeable stricture* may be treated by—

1. Gradual dilatation, as described in the last lecture.
2. Division of the stricture by a knife—
   (*a*) From the inside—internal urethrotomy.
   (*b*) From outside upon a guide, either the shouldered guide of Syme or the median grooved staff, to be followed by the immediate introduction of a catheter along the urethra from the meatus, or by perineal drainage, as the circumstances dictate. This operation is called external urethrotomy.
3. Rapid dilatation by graduated sounds. To be carried out with or without a general anæsthetic.

II.—*Impermeable stricture.*

Two clinical sub-divisions must be made in this form, viz., as to whether the man can pass his urine or not. If he can do so, there may be no urgency; if he cannot, he has retention, and the

* The previous lecture appeared in our issue of April 17th.

case demands immediate treatment. Therefore let us divide these cases into—

1. Impermeable stricture, permitting the passage of urine. Three courses are open :—
   (*a*) To employ rest and general treatment, and repeat the attempts at catheterism, or to try under a general anæsthetic, being prepared to pass on to operation if unsuccessful.
   (*b*) To open the urethra in front of the stricture, and endeavour to pass a fine grooved director, and divide the stricture—perineal section or Wheelhouse's operation.
   (*c*) To drain the bladder above the pubes, or to open the urethra behind the stricture through the perineum. Cock's operation.
2. Impermeable stricture with retention.
   Two methods are available in this case :—
   (*a*) To withdraw the urine by entering the bladder above the pubes—suprapubic puncture; or through the urethra behind the stricture—Cock's operation, and later dealing with the stricture.
   (*b*) To at once perform perineal section, *i.e.*, open the urethra anterior to the stricture, as in 1 (b), above.

The choice of the various methods turns upon several considerations, such as the form of the stricture, the healthy or unhealthy condition of the urine, the presence of sinuses or cystitis; the general condition of the man, the time at the disposal of the patient; the predilections of the surgeon, and also the experience and conveniences at his command.

Let us first consider the treatment of permeable strictures. It may be said that treatment by gradual dilatation is applicable to all permeable strictures. It may have to be abandoned for various reasons discussed in the last lecture, or it may fail owing to the nature of the stricture itself. In the feeble and the old, in those with advanced renal disease, it will often be better to rest content with partial dilatation by this method than to subject the patient to the risks of a general anæsthetic and the decubitus which must follow. The method of intermittent dilatation (ambulatory), permitting as it does the patient to continue his occupation, has a fairly wide application, for it can be employed in the simple annular forms when the urine is normal and the patient young and in good general health. In the presence of septic urine it is never safe to pass catheters and send the patient away; he should be in bed and remain there for a night. Nor should it be done in strictures of long standing, or in the old and enfeebled. In these conditions rigor may arise and prove rapidly fatal. Let it be remembered that the rigor does not occur till some few hours after catheterism. Take the following example :—

An elderly man was admitted in Job ward under my care unable to pass his urine, and I was called to a case of "retention." The appearance of the man, his feebleness, his aspect, his drowsiness, and the absence of pain, indicated that he was suffering not from retention but suppression of urine, and of this he rapidly died. He had been in hospital and left the day before, a catheter having been passed just before leaving.

We had in Job last year an old soldier, a vigorous man of about fifty, who had long suffered from urethral stricture. His general appearance indicated that he had lived a boisterous life, and yet was a steady worker and held a good position in the Woolwich Arsenal. The urine contained some pus and was at first alkaline. Dilatation by catheter was effected without any complication, and he had been up and was to go home next day. The passage of a sound finally to ascertain the condition of the urethra was followed by a rigor and by some days of pyrexia, and though urine passed in fair quantity the man died. The autopsy showed extensive renal destruction, though by no means to such an extent as to be inconsistent with active life. There are other factors entering into the causation of this unexpected and this unavoidable complication besides the secondary renal disease.

I add these few remarks on catheterism to those made in my last lecture, and now pass to the operative treatment.

Internal Urethrotomy.—Whenever a stricture can be traversed, *i.e.*, is permeable, it can be divided from within. It may be necessary to dilate to a No. 3 or 4 by catheterism first in order to pass the instrument. It is, in my opinion, the best of all methods of treatment; not only does it bring about rapid dilatation, but it gives great protection against recurrence—not immunity, far from it. Remember, again, Sir H. Thompson's saying: "Once a stricture, always a stricture." Though many cases do not recur, hard strictures usually continue to give trouble, especially if the habits are not mended. Two and even three operations have been performed on the same man. While applicable to all permeable strictures, it is not wise to make the division from inside when the urine is septic. There is a danger of infection, and of perineal abscess. Nor is it the best course when there

are perineal and scrotal fistulæ. Given healthy urine, or practically healthy urine, and no complications, I look upon this as the best operative method of treatment; it certainly saves a great deal of time, and puts the patient in the best position for the future.

As to the operation itself, it will be sufficient to say here that the stricture may be divided from before backwards, or from behind forwards. In this latter case, the bulb concealing the knife must be passed through the stricture—a plan necessitating partial dilatation beforehand. This was Sir H. Thompson's plan, and this the instrument he employed. With it accurate division can be made, for you will see that the blade projects beyond the bulb, and divides the stricture as it is withdrawn, thus severing all resisting material.

With this other form, a modification of Tevan's, the pyramidal scabbard is set some distance from the end of the instrument. The end is probe-pointed like a catheter, and not larger than a No. 3, so that with this instrument finer strictures can be dealt with and earlier treatment employed. Note that the blade projects from the upper surface, and therefore cuts on this aspect of the stricture only, while with the other pattern either aspect can be divided. This choice is important in so-called lunated strictures which may project from the floor. After division full-sized sounds are passed.

Opinions differ as to the question of retaining a catheter. I have always introduced a No. 11 or 12 gum elastic, and left it in forty-eight hours. It serves two purposes—removes the urine from the recent wound, thus diminishing septic danger, and decreases the liability to rigor. I think also the future passage of sounds is made easier.

The subsequent treatment consists in the passage of graduated steel sounds. I have one patient treated by this method seventeen years ago, again ten years ago, and he has recently come again under treatment, being unable to pass the steel sound easily. The recurrence in this instance must be set down to the neglect of keeping up the dilatation by the regular passage of the sound.

More recently an urethroscope, combined with dilatation of the canal by air, has been employed, and promises to be of value and to give greater accuracy, but for the majority of us equal accuracy can be obtained by the due education of the sense of touch.

Division from outside upon a guide passed along the urethra was the only operation devised and practised before the introduction of the urethrotome, and still has its application. We will call this external urethrotomy to distinguish it from the operation of opening the urethra in front of an impermeable stricture in perineal section. The stricture being pervious, a Syme's grooved staff is passed through the stricture, the shoulder resting on the face of the stricture. On to this projection the incision is made, and the urethra opened in front of the stricture; then the blade is turned backwards and run along the groove in the staff beyond the shoulder, and the stricture fully divided. Then the staff is passed onwards, the shoulder traversing the now dilated canal. The same division may be made upon an ordinary median grooved staff, as was done in the case forming the basis of these remarks, but Syme's staff has the advantage of indicating the anterior limit of the stricture.

Division from outside having been made, the question of draining the bladder for a time through the perineum, or of at once passing a catheter through the urethra, next arises. Drainage is of service when the urine is septic and contains pus, as in the case forming the subject of these remarks, and I think is best carried out for three or four weeks. It is also valuable, but not essential, when there are urinary fistulæ. If there be no good reason for employing perineal drainage, a full-sized catheter is introduced along the urethra and retained in the usual way till the perineal opening has closed. The same course is to be pursued after the cessation of the perineal drainage, and the steel sounds passed at intervals as in other cases.

Rapid dilatation by graduated steel sounds has been employed by many in lieu of division. It is an old practice, for these sounds I show you were used by Mr. Cock many years ago. He carried them round the ward in his pocket, drew one forth, and smearing it with oil introduced it with unerring success. A better pattern is known as Lister's. It has, you will see, a bulbous end and a smaller curve, and in my own experience is the best. Another pattern with smaller curve suggested by Mr. Clutton, of St. Thomas's, is valuable for the personal use of the patient, and with it he is less liable to do harm. This method is applicable to any permeable stricture, and may be employed without the use of a general anæsthetic. You will see that each instrument is graduated so as to cover three or four sizes. In the simple annular stricture it is not uncommon to rapidly dilate from a No. 4 or 5 up to a No. 12. There is always bleeding in this method of dilatation, so

there must be a rupture of the mucous membrane. The indurated material is no doubt torn through instead of being cut as in urethrotomy. Opinions differ as to the respective values of these processes of division. A clean incision commends itself to most, the sound to be used afterwards. Nevertheless, good, and as permanent, results have followed rapid dilatation, and while I would not place it by the side of internal urethrotomy —with which it must be compared—I would hold it as the best substitute when the internal division cannot be practised. Rapid dilatation may fail to secure permanent relief in the resilient stricture, division alone giving satisfactory results.

Impermeable stricture without retention.—Of the three courses open in the treatment of a case of this kind let us consider first the question of general treatment. If the patient can pass urine without undue frequency, and the urine is itself acid and free from pus and there is no immediate hurry, the plan of employing rest and the usual remedies for allaying spasm and irritation has much to recommend it. In the majority of cases a catheter can be passed in a few days. It is well to place these patients on a comparatively low diet, to give daily saline aperients, abundance of bland fluids, and alkalis combined with some bromide. Once the stricture becomes permeable it may be treated according to the plan suggested for that variety.

If, however, the urine is septic and micturition frequent and painful, delay is dangerous, and we must then adopt one of two courses—open the urethra in front of the stricture (perineal section), or drain the bladder above the pubes or by the perineum according to Cock's method, viz., opening the urethra behind the stricture.

In opening the urethra in front of the stricture a grooved staff is passed down to the obstruction, the urethra is opened, and by the use of a Wheelhouse's staff the anterior portion of the divided urethra is hooked upwards, and so the urethra put on the stretch. This facilitates the entrance of a probe into the strictured orifice. Once a fine instrument can be passed through, others can be made to follow and the stricture fully divided. This plan is known as perineal section, and having been modified by Wheelhouse is sometimes known by this surgeon's name. So far as I can see, the only improvement he made in the operation was the addition of the hook to the straight grooved staff of Aston Key. Before the introduction of this staff we held the urethra on the stretch by means of toothed catch forceps. The same effect was produced as is now more easily accomplished by Wheelhouse's staff. This was the method, as I have told you, employed in the case which forms the text of this lecture.

Quite a different principle is involved when the third plan is selected, namely, drainage of the bladder. This gives rest to the part, and as a rule a catheter can be passed after a couple of weeks of such drainage, though sometimes the full perineal section has still to be done.

Of the two methods of accomplishing drainage we may, I think, at the present day set aside Cock's operation, as it is so seldom performed, and we have left suprapubic drainage—an effective, easily accomplished, and safe proceeding. I will have a word to say on the mode of conducting this operation a little later, and may now only indicate its position in the treatment of this variety of impermeable stricture. The presence of a suprapubic opening when we come to perform the perineal section enables us to pass a sound through the vesical opening of the urethra up to the posterior face of the stricture, and in this way is a very important guide in seeking for the true urethral track through the perineum.

Impermeable stricture with retention.—In this case the patient cannot pass water, and the natural passage cannot be traversed by a catheter. Relief must therefore be given by some operative means.

Two principles may be applied here; first, to withdraw the urine by entering the bladder from behind the obstruction, leaving the stricture for the moment otherwise untreated. This relieves the retention with its immediate distress and dangers, and gives time for the consideration of other methods.

The second method is to expose the obstruction by an external incision, getting close down upon it and then attempting by fine probes to discover the channel. This being done, the stricture is divided. The retention is thus relieved, while at the same time the stricture is divided.

The first line of treatment is carried out by entering the bladder above the pubes—suprapubic puncture. This safe and easy operation has now replaced that peculiarly Guy's operation, known as Cock's operation, and referred to in an earlier part of this lecture. It will be recalled that it consists in opening the urethra behind the stricture through the perineum without any guide except the apex of the prostate.

The second method is that referred to in the treatment of impermeable stricture without

retention, viz., perineal section (Wheelhouse's operation).

Let us consider first the method of relieving the retention by suprapubic puncture. This operation came forward somewhere in the early eighties, or, more correctly, was revived about this time, and soon became a routine practice on account of the success and freedom from risk that followed its employment. I well remember the anxiety with which one went to a case of retention at one time, perhaps in some small house where no conveniences for operation existed, and there were no nursing homes to which a patient could be transferred. Now one goes provided with an aspirator or a long trocar and cannula, certain of being able at least to relieve the retention and so the immediate distress. The operation does not require an anæsthetic nor an incision. The suprapubic region is cleaned without shaving and the trocar plunged backward and downward into the bladder. I prefer an aspirator for the reason that, when withdrawn, the exhaust, being kept on, practically prevents the escape of septic urine into the cellular tissue, an accident that may occur with a simple cannula.

The most suitable case for suprapubic puncture is that of sudden retention, for as a rule the man passes water naturally next day. In lecturing upon this operation some years ago I collected a series of cases, and in all but one out of, I think, a dozen, a catheter was passed within twelve hours of relief by puncture. In order to facilitate such a result the urethra was washed out, filled with carbolic oil, a dose of calomel was administered, followed by thirty drops of opium tincture, and of course the cannula withdrawn.

When the difficulty in micturition has been gradually increasing, and therefore the stricture is probably long and difficult to traverse, it will be better to leave a drain above the pubes. The cannula of the aspirator may be left, or a large trocar and cannula being used, a rubber catheter is passed through the cannula on the stretch, and the cannula withdrawn over the catheter. The latter, now being released, enlarges and fills the channel, so preventing the escape of urine. This is the more important if the urine be septic, though not essential with healthy urine, which is by no means a septic material.

Should the cannula have been removed immediately after puncture, as was done in the earlier cases referred to, and it be still impossible to pass a catheter, the suprapubic operation must be repeated, and this time the instrument retained.

When once traversed, the subsequent treatment becomes similar to that of the permeable stricture.

The second method of affording relief, viz., to open the urethra anterior to the stricture, search for the channel, and when found dividing the obstruction, is often a long and tedious proceeding. It is unnecessary in the cases of acute retention, such as those coming on after a drinking bout, or after exposure to cold, when, as I have said, suprapubic puncture is most suitable, and where a catheter can almost always be passed after a few hours' rest. In the chronic cases it may be necessary, even after a week or more of suprapubic drainage, and, therefore, is a suitable proceeding for retention in such cases. It is, I would advise, however, better to precede such an operation by suprapubic drainage, as in the larger number a guide can then be passed, and thus division easily completed.

Another advantage of delay may be mentioned here, viz., that of opening the bladder above the pubes, and passing a guide through the urethra up to the obstruction. While this may be done during retention, the possibility of the urine being septic renders the opening up of the cellular layers more dangerous. For this additional reason it is better to postpone the larger measure.

While the above methods apply generally, it must be remembered that in old and complicated cases with, for example, perineal and scrotal sinuses, and with septic urine and pyelonephritis, any operation of long duration is apt to be attended with special risks. In some of the permeable cases it is better simply to drain the bladder through the perineum opening behind the stricture on a grooved staff, leaving the direct treatment of the stricture till later. Four to eight weeks' drainage will, if the kidneys be not too far destroyed, bring about a healthy condition of urine, lead to improvement in the general health, and thus put the patient in a position for the dilatation or division of the stricture. You will see that this effects the same results as Cock's operation. It drains through the same point, but the operation is a very simple one when performed upon a guide, and takes no longer. In advanced impermeable cases suprapubic drainage may be employed, where Cock's bolder procedure does not commend itself.

Residents' Smoking Concert.

THE Residents gave a most successful Smoking Concert in the College on Saturday, June 5th. There was a good audience, but scarcely so good as the excellence of the programme deserved; those who were present were universally of the opinion that the concert was a "jolly good bob's-worth."

Sir Alfred Fripp was in the chair, and conducted the proceedings with all that *bonhomie* which is so characteristic of him. Among the visitors were Dr. Allport, Dr. Morgan Dockerell, Mr. Ernest Dunstan, Mr. Walter Grace, Mr. Stanley Hazell, Dr. Byrd Page, and Mr. Philip Turner.

Mr. Doll opened the concert by singing "Follow me 'Ome," (words by Rudyard Kipling). The mellow tone and wide compass of his voice make it one of the best we have in the hospital. Mr. Walter Grace next sang two songs, and showed that although—as the Chairman told us—he had reached the age of seventy-two, his voice had lost little or none of the vigour of its prime; the first song was enthusiastically encored. Another visitor, Dr. Byrd Page, then occupied the platform, and while arranging his furniture treated us to a lecture on the "Doctrines of empirical rationalism," briefly alluding to the "conflicting evidence of mundane partisans," and belief in "devastated and degenerated dogmas." This was all our reporter was able to take down, but there was much more to the same purpose. Dr. Byrd Page then performed some really astounding card tricks, removing by "will power" from a pack in a glass "vessil" given cards which had been chosen by the company. Afterwards he performed an even more wonderful feat of legerdemain with Mr. Carlyll's watch, which he spirited away from its owner into a sealed wooden box. We are happy to state, however, that the watch was eventually returned.

Mr. Stanley Hazel, looking wonderfully like a twin brother to the Chairman, then sang two of his own comic songs—"The Dispensary Doctor" and "Peter Potter"—which have been mentioned before in these columns for their aptness both in words and music. Mr. Hazell's name, indeed, has become a bye-word at the hospital for really clever and original comic singing.

Mr. Chapple told us in song how "They all love Jack," and Mr. Dunstan, playing his own accompaniment, sang "The Yeoman's Wedding." From Mr. Irvine's singing of the Lord Chancellor's patter-song from "Iolanthe" we do not doubt that he would have been able to pass the "Royal Artillery" or "British Constitution" test with credit.

Mr. Renton next gave a series of imitations of various members of the Staff, including the Chairman. These were very unequal in merit, but some of them were perfect little bits of mimicry, and it is a welcome discovery to find that we have at least two men at the hospital who have studied the idiosyncrasies of the Staff to advantage. Mr. Renton gave some half-dozen imitations, but the audience unanimously demanded more. Mr. Montgomery, accompanied by Mr. Renton, sang about "The Little Girl with the Bandbox." Dr. Allport then sang, in inimitable style, that hoary old song (we do not know its name) which tells us how Sister Mary walked. Dr. Allport made an indescribably funny thing of the old song, and in his richly comic facial expression was pélissier even than the leader of the "Follies" himself. Mr. Grace's two songs were again vociferously applauded, as was also Mr. Doll's singing of the charming song "My Moon," which is so popular in the "Follies'" show.

After a brief announcement by the Chairman with regard to the forthcoming concert at the Æolian Hall, particulars of which will be found elsewhere in this issue, Dr. Byrd Page continued the programme by showing us how to cheat at cards. Fortunately, he selected nap as the game to teach on; had it been bridge, the consequences in the College might have been awful. Dr. Byrd Page's clever tricks confirmed us in one firm resolution, viz., never under any circumstances to play cards with Dr. Byrd Page. Next the performer asked for someone in the audience "who never believed anything" to come on to the platform. Mr. Layton at once offered himself. An apparently incredible trick was performed, to the amazement of everybody. We did not know which to admire more—the tricks themselves, or the performer's brusque handling of his assistants. Dr. Byrd Page's name will remain one to conjure with for many a long day at the hospital.

Mr. Stanley Hazel followed with three more of his songs—"She wore a linseed poultice;" a North Country song, with a chorus which requires a facial gymnast to do it justice; and an old friend—"Crazes." Mr. Irvine sang the "Vicar's Song" from the "Sorcerer," and Mr. Dunstan two songs of a sentimental character, in excellent style. Mr. Chapple concluded the programme with the dainty "Fairies' Lullaby." It should be added that Messrs. Ball, Depree and Renton shared the accompaniments.

The concert concluded with the National Anthem and cheers for the Chairman and for Dr. Byrd Page. We should like to express our heartiest thanks to the talented visitors who so kindly helped to entertain us, and to the Residents who arranged a thoroughly enjoyable evening.

Papers by Guy's Men.

William Sheen, M.S. Lond., F.R.C.S. Eng.: A Case of Traumatic Rupture of the Sigmoid Colon: Operation: Recovery.—*British Medical Journal*, 29th May, 1909.

Major H. Austen Smith, M.B., B.C., I.M.S.: A Case of Blackwater Fever.—*The Indian Medical Gazette*, May, 1909.

Miller Fund.

Mr. Croucher acknowledges the following subscription:—

	£	s.	d.
F. M. S.	0	10	6

Reviews, etc.

The price of books submitted for review should in every case be stated.

The Diagnosis of Small-pox. By T. F. Ricketts, M.D., M.R.C.P. Illustrated by photographs by J. B. Byles, M.D., F.R.C.S. (Cassell & Co.) Price 21s.

In the preface to this book the author explains that although it was ten years or more since he first conceived the notion of writing it, he has been deterred by the consideration that it would have had but little value unless adequately illustrated. "It is owing," he says, "to the facilities extended to us by the Metropolitan Asylums Board that the realization of the project has become possible." If by this phrase the author means to state that funds were provided for the illustrations by the Board, we think that it should be so stated in more definite language. The illustrations are certainly of unusual excellence, and are very far in advance of anything that has been attempted before in a work published at anything like the same price. Twelve are coloured, one hundred and ten are in black and white from photographs, and there is not one which is not wholly admirable in its clearness. Especially good are the photographs which represent small areas of skin seen under a high magnification. Many are printed in such a way that they can be used with a stereoscope. Moreover, the explanatory notes which accompany them, and in which similarities and contrasts with the appearances seen in other plates are dwelt upon, are models of clearness.

The subject is treated throughout the book with great fulness and obviously out of a large experience. At a time when cases of small-pox are rare, and when few students have any opportunity at all of studying the disease, the utility of such a work, with its excellent illustrations, is obvious. The author especially emphasizes the large part played by accidental cutaneous irritation in modifying the distribution of the rash, and many of the illustrations have been chosen to show the aggregations of pustules which have resulted from such causes as the application of a blister, a patch of eczema, or the pressure of corsets or garters. The differential diagnosis between small-pox and other rashes is dealt with very clearly.

The book would have been more easily read if the writer had adopted a more simple, more direct, and less metaphorical style of writing. Of the symptoms of hæmorrhagic small pox, he writes: "It must not always be assumed that the nature of the attack is always advertised boldly in symptoms of blood;" and, again, "Even when these symptoms are pronounced, no patient runs up the whole gamut of expression of the hæmorrhagic tendency." In a book upon small pox, such metaphor is apt to seem out of place.

Practical Guide to the Diseases of the Throat, Nose, and Ear. By W. Lamb. 2nd Edition. (Baillière, Tindall & Cox.) Price 7s. 6d. net.

This is the second edition of Mr. Lamb's useful work. The author allows himself but a short space in which to compress a large subject, but on account of the arrangement of the various sections the result is excellent.

Each part of the upper air passages is considered separately, and all are described on a similar plan. First, anatomical considerations, followed or accompanied by an excellent account of the methods of examination; and then an account of the pathology, diagnosis, and lastly, treatment. This method makes the book one of easy reference. As a practical guide it is good and should prove most useful to those who wish to attain special knowledge without consulting the more comprehensive works on the various subjects.

The Fluids of the Body. By E. H. Starling, M.D., F.R.C.P., F.R.S. (Archibald Constable & Co.) 6s. net.

No higher commendation could be given to this volume than that which the title-page presents. That it embodies a series of lectures by Professor Starling prepares one for a lucid exposition of facts and fascinating though eminently feasible theories. Nor is such anticipation ill-founded; the reader's interest is sustained to the end. The subjects are not treated exhaustively. As is rightly suggested in the preface, the presentation from the point of view of one worker is more likely to excite interest and stimulate research than a treatise which gives one the impression, intentionally or otherwise, that the last word has been said on any or every subject.

In the first lecture the present state of our knowledge of the properties of colloidal solutions is reviewed. Although this is still limited, the author points out that it enables us to form a conception of the mechanism underlying many of the phenomena which we regard as characteristic of living organisms.

The second lecture treats of the osmotic relationship of cells, and particularly of the all-important part played by the surface layer of protoplasm in maintaining the privacy of cell life, whilst affording a means by which the cell enters into relation with its environment. The internal medium of higher animals, the cœlomic fluid—blood, lymph and tissue fluid in ourselves—was probably at its first appearance simply an enclosed portion of the surrounding medium or sea-water.

The following lectures describe some of the mechanisms by which the composition and amount of this internal medium of the body are regulated, and discuss the physical forces, intra- and extra-cellular, involved in their work. In this connection we find chapters dealing with the intake, exchange, and output of fluids respectively. The author maintains that the balance of forces, which determine the distribution of the fluid of the body, can be accounted for on the so-called mechanical theory of lymph formation, and that the assumption of an active co-operation of the endothelial or tissue cells in the production of lymph gives us no aid in our

explanation of the manifold adaptations of the vascular system.

The last lecture represents one of the Arris and Gale Lectures delivered in 1896. The object of its introduction into this volume is to show how closely our control of morbid processes is bound up with the advance of the purely physiological knowledge which forms the theme of the first seven (Mercers' Company) lectures. It deals with the causation of dropsy.

The author admirably accomplishes his aims. The book certainly excites interest, and should it find energy, will stimulate research. It clearly indicates a way which will lead us from the stagnation of the old vitalism to a further insight into the basis of life.

A Manual of Operative Surgery. By Sir Frederick Treves and Mr. Jonathan Hutchinson. Vol. i. (Cassell & Co.) Price 18s.

This, the third edition of Sir Frederick Treves' Operative Surgery has been entirely revised by Mr. Jonathan Hutchinson, and by him much enlarged.

The first volume deals with abdominal surgery and the surgery of the urogenital tract. It is an eminently practical book; the author has included a number of different methods in his descriptions of the various operations, but has made a judicious selection, so that the reader is not confounded too much.

The accounts of the operations are excellently clear, and are accompanied by diagrams and often by anatomical plates. The chapter on the preparation of the patient is admirable, as is that on the after-treatment of patients subjected to abdominal section.

The series of somewhat tedious photographs of hospital theatre furniture and sterilizing apparatus is perhaps superfluous.

Notes and Thoughts from Practice. By W. T. Tyson, M.D., F.R.C.P., F.R.C.S. (John Bale, Sons & Danielsson.) Price 2s. 6d.

"The reason why so few good books are written," said Walter Bagehot, "is that few people that can write know anything. In general, an author has always lived in a room, has read books, has cultivated science, is acquainted with the style and sentiments of the best authors, but is out of the way of employing his own ears and eyes. He has nothing to hear and nothing to see. His life is a vacuum. . . . He sits beside a library fire, with nice white paper, a good pen, a capital style, every means of saying everything, and nothing to say." On the other hand, the people who do know something, and are always employing their own eyes and ears, are generally too busy to write. Dr. Tyson, who is Physician to the Victoria Hospital, Folkestone, and an old Guy's man, has felt something of this, for he opens his little book with the remark that "when men have little to do and less experience they write books, and when they should write books they have no time. I am venturing to put down my thoughts."

The result is a little volume of notes and thoughts from practice, some of them mere jottings—bearing evidence of haste in their style and grammar—such as "The Danger of putting old people to bed," "The Soporific Action of Mercury," and "The Relief of the Right Heart"; others are longer essays, such as those on "Clinical Types of Pneumonia," "Some Thoughts on Food and Exercise," and "A plea for a more precise classification of disease." In "Some Remarks on the Prevention of Appendicitis," Dr. Tyson appears to share the general opinion of experienced practitioners, that appendicitis has much increased of late years, and he thinks that the decline of systematic purging in this country may have much to do with it. He has put much sound common-sense into the remarks on food and exercise. For instance, writing on the subject of adapting the diet to bodily needs, he writes:—"I have often watched the huge meat dinners that many of our hospital patients obtain when in bed, practically the same amount in quality and quantity as when they are at work; fortunately for themselves, a bilious attack or diarrhœa often supervenes to relieve the surfeited organs, or the house-surgeon plies them with the old white mixture."

The Student's Handbook of Physiology. By the late Arthur Clarkson, M.B., C.M. Ed., and David Farquharson, M.B., C.M. Ed. (E. & S. Livingstone.) Price 12s. net.

There are many text-books of Physiology, and each one has many deficiencies. This may be due to the rapid growth of the subject, or more probably to the fact that the modern physiologist, afraid of the "arm-chair scientist" epithet, prefers to spend the greater part of his time at routine laboratory work, varied by the production of reams of papers. Such work is naturally necessary, but at the same time wasted, unless periodically summed up as a whole by intelligent authorities. It is, therefore, with interest that one takes up a new text-book on the subject; but in this case one is again somewhat disappointed. The present volume is well arranged and quite clearly illustrated, and may even represent an advance on many of our text-books, but there is no definite sign of the improvement we need. Recent advances are often untouched, or at best dismissed in a few lines. An author cannot well afford to neglect the discoveries of a period so fertile as the last ten years. The recurrence of such sentences as the following make the book by no means easy reading:—"It is because our knowledge of these waste products is of service to the understanding of what little we know of the previous changes the food has undergone subsequent to its absorption by the alimentary canal that we shall now turn to excretion. . . . The connective tissue of the kidney may almost be said to be conspicuous by its absence, as it is so small in amount."

However, considering the conditions under which the book was produced, we may look forward with interest to the publication of a further edition, in which, there is every reason to anticipate, may be found a handbook well suited to the needs of the average medical student.

A Manual of Medical Treatment, or Clinical Therapeutics. By I. Burney Yeo, M.D., F.R.C.P., Emeritus Professor of Medicine, King's College, London, Consulting Physician to King's College Hospital, etc.; Raymond Crawford, M.A., M.D. Oxon., F.R.C.P. Lond., Physician to King's College Hospital, Examiner in Materia Medica and Pharmacology, University of London; and E. Farquhar Buzzard, M.A., M.D. Oxon., F.R.C.P. Lond., Assistant Physician to Royal Free Hospital and to the National Hospital for the Paralysed and Epileptic, Queen's Square. Fourth Edition. Two volumes. (Cassell & Co., Ltd.)

This well-known book has now reached a fourth edition. Both the second and third editions were reprinted four times, and for the present edition Dr. Burney Yeo has had the valuable help of Dr. Raymond Crawford and Dr. Farquhar Buzzard. With such a favourable life-history there is small need to comment upon the present condition of the work. We believe that we can give no higher praise if we say that, to any man who is reading for the degree of Doctor of Medicine at London University, the book is indispensable. This is no mere dictionary of treatment, no mere "drug list," a product of the imitative ingenuity displayed by the manufacturing chemist, but a valuable text-book on general pathology, and throughout the work treatment is reviewed, discussed, and advised, from a pathological standpoint. To mention one instance among many, the article upon the nature and treatment of "Gout" (vol. ii., p. 476), is the best account which we have ever read. The authors, moreover, are broad-minded and yet dogmatic. We invariably find a review of different forms of treatment as recommended by those well qualified to speak upon special subjects, with, in conclusion, the valuable opinion and experience of the three writers.

Much of the additional material collected has only been published during the past year or two, such as the Bradshaw Lecture of Sir James Barr upon Pleuritic Effusion, with remarks on the use of sterilized air and adrenalin injections. Upon this form of treatment, and also upon the lactic acid treatment of diarrhœa, recommended by M. Hayem, a very carefully-worded opinion is expressed. Our experience in the latter case, with a large number of cases of diarrhœa in children, has been almost universally unfavourable.

On the subject of the serum treatment of Graves' disease, the authors write, "We have ourselves failed to detect any result from its use, either good or bad, and this *at great pecuniary expense.*" In this latter connection, we remember, as house-physician, some five years ago, a few words from the Superintendent on a certain Wednesday morning.

Excellent articles will be found upon the treatment of appendicitis, peritonitis and intestinal obstruction, opinion which is worded in no uncertain language. Again, on the question of gastric ulcer treatment. "We feel bound," they write, "to express unqualified dissent from Lenhartz's system, in one point at least, viz., in the administration of food by the mouth immediately after a recent hæmorrhage."

"With regard to sea-sickness"—the authors' admission is pathetic—"we doubt if *anything* can prevent it in *certain* persons and in *certain* circumstances." One can read much between the lines. Possibly they, too, have memories of a certain night between Messina and the Bay of Naples, of another morning in the Gulf of Lyons. We can sympathise because we *know.* But, joking apart, the book is in every way excellent; it is the best work we know upon the subject of Medical Treatment, and should be on the bookshelf of both student and practitioner.

Studies on Immunisation, and their application to the Diagnosis and Treatment of Bacterial Infections. By Sir A. E. Wright, M.D., F.R.S. (Archibald Constable & Co.) Price 16s. net.

It is now becoming quite a usual custom for laboratories to publish from time to time volumes of "collected reprints" representing in convenient form the results of researches carried on therein. Such volumes, however, usually consist of studies dealing with many diverse subjects. Sir Almroth Wright has collected and published, under the title "Studies in Immunisation," a series of twenty-five papers by himself and other workers on some of the varied aspects of immunity. The feeling of resentment aroused by a perusal of this work, through the lack of a concerted exposition in our author's lucid and fascinating style of the principles and practice of vaccine therapy, is to a certain extent removed by the pleasure we experience in renewing our acquaintance with old and familiar papers in their present handy form. Dealing, then, as we are with a series of papers which have already made their appearance in the pages of the medical press at various dates during the past ten years, and have been in many cases keenly criticised at the time of their appearance, there is little room for comment. Suffice it to say that the volume affords a complete and historical record of a school of investigation that at the present day is exercising a profound influence on the practice of medicine.

Papers, etc., Received.

My Journal. An occasional magazine, edited and conducted by Dr. Dabbs. This little paper is entirely a one-man performance, as Dr. Dabbs is the poet, proprietor and sole contributor, as well as editor. He is tired of being under the "ban of the editorial blue pencil" of the regular Press, and has therefore decided to conduct his own paper, which is given away, and contains no advertisements. Here he writes discursively of many things—of his boyhood, of the Twopenny Tube, of Cleopatra's Needle, newspapers, art collections, milk supply, and various political topics. The present issue opens and closes with some of Dr. Dabbs' own verses.

"Lachrymal Reflexes; Pressure-Sensibility of Head and Neck; and the Squeezed-Tongue Sensation." By

Leonard J. Kidd, M.D. (Reprinted from the *Review of Neurology and Psychiatry*, March, 1909.)

Third Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. Price 21s. net. Also *Supplement to Third Report*, a review of some of the more recent advances in tropical medicine, etc. By A. Balfour and R. G. Archibald. Price 10s. 6d. Messrs. Baillière, Tindall & Cox have written to us as follows with reference to these publications:—

"We have been authorised, on behalf of the Department of Education of the Sudan Government, to undertake, in future, the issue of the Reports of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. Two volumes had previously been issued, covering a period from the foundation of these Laboratories in 1903 to 1906. The Third Report was published at the beginning of the present year, bringing the work up to 1908.

"The Sudan Department of Education has taken this step to meet the considerable demand for these Reports which has arisen amongst medical men and other scientific workers interested in tropical research. Hitherto only a limited number of copies has been issued, and these Reports have been sent gratuitously to Government departments, and to various medical, sanitary, and other institutions interested, as well as to a few leading authorities on the subjects dealt with.

"The work of these Laboratories has so far extended that the latest Report contains some 480 pages of detailed records of many interesting experiments and researches, principally connected with Tropical Medicine. This volume is profusely illustrated, and includes many valuable coloured plates.

"Simultaneously with the Third Report, and as a supplement to it, is published a review of the progress made in Tropical Medicine during recent years, compiled by Dr. Andrew Balfour, the Director of the Laboratories, and Dr. R. G. Archibald.

"The great cost of production of these Reports, especially in their present voluminous dimensions, necessitates making a charge for them henceforth. The price fixed is as moderate as is consistent with the cost of publication, and any profit made will be devoted by the Sudan Department of Education to a special fund for future publications of the Laboratories.

"All applications for current publications and for reprints of the First and Second Reports of the Wellcome Research Laboratories, Khartoum, should be addressed to us."

Periodicals received.—The Hospital; The Clinical Journal; The British Journal of Nursing; St. Bartholomew's Hospital Journal; Polyclinic; St. George's Hospital Gazette; South African Medical Record; London Hospital Gazette; Manchester University Magazine; The Nursing Times; St. Thomas's Hospital Gazette; Prescriber.

Notice.

His Majesty's Indian Medical Service.

A competitive examination for not less than twenty-one appointments to His Majesty's Indian Medical Service will be held at the Royal Army Medical College, Millbank, S.W., and at the Examination Hall, Victoria Embankment, London, on the 26th July, 1909, and five following days.

Copies of Regulations for the examination, together with information regarding the pay, retired pay, &c., of Indian Medical Officers, can be obtained on application to the Military Secretary, Indian Office, London, S.W. Application for admission to the examination, with the necessary certificates, must be sent so as to reach him on or before the 13th July, 1909.

PROGRAMME OF EXAMINATION.

Examiners:

Dr. T. D. Acland, M.A., M.D., F.R.C.P., in Medicine and Therapeutics.

Mr. C. J. Symonds, M.S., F.R.C.S., in Surgery and Diseases of the Eye.

Professor A. Thomson, M.A., M.B., F.R.C.S., in Applied Anatomy and Physiology.

Professor G. Sims Woodhead, M.D., F.R.C.P.E., in Pathology and Bacteriology.

Sir Wm. J. Smyly, M.D., in Midwifery, Diseases of Women and Children.

Dr. F. D. Boyd, C.M.G., M.D., F.R.C.P. (Edin.), in Materia Medica, Pharmacology and Toxicology.

At the Royal Army Medical College, Millbank, Monday, 26th July, Practical Pathology, from 2.30 p.m.

At the Examination Hall, Tuesday, 27th July, Paper in Medicine and Therapeutics, from 9 to 11 a.m.; Paper in Surgery and Diseases of the Eye, from 11.30 a.m. to 1.30 p.m.; Clinical Medicine, from 2.30 p.m. Wednesday, 28th July, Paper in Pathology and Bacteriology, from 9 to 11 a.m.; Paper in Applied Anatomy and Physiology, from 11.30 a.m. to 1.30 p.m.; Clinical Surgery and Examination of Specimens, from 2.30 p.m. Thursday, 29th July, Paper in Materia Medica, Pharmacology, and Toxicology, 9 to 11 a.m.; Paper in Midwifery, Diseases of Women and Children, from 11.30 a.m. to 1.30 p.m.; Friday, 30th July, Surgical operations, from 9.30 a.m.; Oral Examination (half of the candidates), from 2.30 p.m.; Saturday, 31st July, Oral Examination (remainder of the candidates), from 9.30 a.m. Examiners to meet in conference on termination of the examination.

O'M. CREAGH, *General*,
May, 1909. Military Secretary.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Sport.

Cricket.

GUY'S v. UNIVERSITY COLLEGE HOSPITAL.

CUP TIE.

This match was started at Chiswick on Thursday, May 27th, but owing to rain had to be abandoned. Our opponents won the toss, and went in to bat; nine wickets were down for 164 when play was finally stopped by rain.

GUY'S v. BEXLEY ASYLUM.

Played at Bexley on Saturday, May 29th. Guy's won by 24 runs. Bexley won the toss, and their total only reached 104. Kahlenberg and Rice bowled throughout, the analysis being 5 for 42 and 5 for 54 respectively. Guy's batting did not reach a very high standard, although Hunôt and Kahlenberg both played very useful innings.

BEXLEY ASYLUM.

Goddard, c Munden, b Kahlenberg	7
Pawson, b Kahlenberg	19
Mitchell, b Rice	6
Joliffe, c Kahlenberg, b Rice	0
Everest, c Bergh, b Kahlenberg	28
Keenan, c Hunôt, b Kahlenberg	7
Evans, c Kahlenberg, b Rice	9
Bartlett, not out	17
Pace, b Rice	6
Williams, c & b Rice	1
Rolfe, c Medlock, b Kahlenberg	2
Extras	2
Total	104

GUY'S.

C. H. Medlock, b Williams	4
G. Andrew, b Everest	8
M. M. Munden, c Bartlett, b Goddard	18
F. C. Hunôt, st Rolfe, b Everest	46
F. Kahlenberg, b Goddard	24
A. G. Jones, b Everest	0
W. C. Miller, b Everest	0
H. Bergh, not out	10
C. E. Rice, b Goddard	1
G. Gibb, c Goddard, b Everest	2
J. Rhys Evans, b Everest	5
Extras	10
Total	128

GUY'S v. CROFTON PARK.

This match was played on Whit Monday at Honor Oak Park. The weather had changed for the better, and with a hard fast wicket runs came quickly. Crofton Park batted first, and made 160; Kahlenberg was again in form with the ball, taking seven wickets for 65 runs. On Guy's going in to bat, the first wicket soon fell. Then two or three big stands were made, and some fine batting was witnessed. Montgomery especially played a fine innings. Our opponent's score was easily passed, the total reaching 232 runs.

CROFTON PARK.

A. R. Partridge, b Kahlenberg	6
W. R. Hone, b Rice	2
W. E. Cotton, b Kahlenberg	12
Knight, c Lee, b Kahlenberg	12
J. S. Cotton, st Birks, b Kahlenberg	52
Theobalds, c Munden, b Rice	1
E. Glass, not out	30
W. S. Murrel, c Munden, b Kahlenberg	5
J. Day, st Birks, b Kahlenberg	4
H. S. Pearson, c Montgomery, b Sampson	24
C. E. Brown, b Kahlenberg	4
Extras	8
Total	160

GUY'S.

C. H. Medlock, b Cotton	4
G. Andrew, c Glass, b Pearson	34
R. Montgomery, b Pearson	65
A. H. Birks, b Hone	44
M. M. Munden, b Day	6
H. Lee, retired	28
F. D. Saner, b Pearson	24
F. Kahlenberg, b Day	17
B. F. Sampson, c and b Day	3
C. E. Rice, not out	0
J. Rhys Evans, b Day	0
Extras	7
Total	232

GUY'S v. TUNBRIDGE WELLS.

Played at Tunbridge Wells on Wednesday, June 2nd. Owing to rain the game was not started until after lunch, when Guy's batted first, and knocked up the useful total of 235. The wicket was slow and easy, and runs came quickly. H. D. Wyatt played a capital innings, making a century. F. Bergh also batted well for 42. There was little hope of finishing the match when Tunbridge went in, their score being 155 for 5, the match being left drawn.

GUY'S.

M. M. Munden, c Williams, b Comyn	0
C. H. Medlock, c Williams, b Everest	9
F. Bergh, c Gwynn, b Elliott	42
G. Andrew, b Neild	15
F. Kahlenberg, b Gwynn	0
H. D. Wyatt, b Neild	114
F. C. Hunôt, b Elliott	6
W. C. Miller, not out	39
R. Poyser, b Neild	0
Extras	10
Total for 8 wickets	235

Innings declared closed.

C. E. Rice, E. J. Rhys Evans, did not bat.

TUNBRIDGE WELLS.

F. Neild, lbw Wyatt	28
W. S. Gwynn, b Kahlenberg	14
J. Williams, c Miller, b Munden	28
F. E. Curry, c Birks, b Andrew	43
H. Comyn, b Evans	24
R. C. Clarke, not out	12
Extras	6
Total	155

G. Comyn, C. Elliott, D. Allen, Everest, did not bat.

Guy's Hospital Rifle Association.

The first shoot for the Armitage Cup took place on Wednesday, June 2nd. Scores:—

GUY'S.

E. O. Yerbury	93
H. Platts	90
W. E. Wallis	88
H. L. Attwater	86
G. A. Blake	84
W. Robinson	66
Total	507

Other scores:—St. Bartholomew's, 487; St. Mary's, 468.

The second shoot took place on Wednesday, June 9th. Scores:—

GUY'S.

E. O. Yerbury	98
H. L. Attwater	96
H. Platts	95
G. A. Blake	88
W. E. Wallis	87
W. Robinson	82
Total	546

Other scores are not yet available.

Lawn Tennis.

1ST VI. v. DULWICH FARM.

This match was played on our ground on Saturday, May 29th, the hospital being defeated by six matches to three. Result:—

H. Chapple and H. Sharpe lost to A. D. Eames and H. C. Evans, 2–6, 3–6; beat C. V. Hill and F. Danby Smith, 6–3, 6–4; beat V. Penman and J. P. May, 6–4, 8–6.

R. Curle and A. S. Roe lost to Eames and Evans, 1–6, 5–7; lost to Hill and Smith, 1–6, 4–6; lost to Penman and May, 2–6, 4–6.

G. C. Covell and G. H. Hunt lost to Eames and Evans, 0–6, 2–6; lost to Hill and Smith, 5–7, 5–7; beat Penman and May. 4–6, 7–5, 6–3.

1ST VI. v. WALTON

(3RD ROUND SURREY SENIOR CUP.)

This match was played at Walton on Thursday, June 3rd, the hospital winning by five matches to four. Result:—

H. Chapple and H. Sharpe lost to Flavelle and Hawes, 6–8, 5–7; beat Allen and Clode Baker, 6–4, 7–5; beat Young and Klein, 6–3, 6–2.

A. S. Roe and R. Curle lost to Flavelle and Hawes, 1–6, 4–6; lost to Allen and Clode Baker, 7–5, 4–6, 3–6; beat Young and Klein, 7–5, 6–8, 6–3.

G. C. Covell and G. H. Hunt lost to Flavelle and Hawes, 3–6, 3–6; beat Allen and Baker, 6–3, 6–4; beat Young and Klein, 6–1, 3–6, 10–8.

2ND VI. v. ST. THOMAS'S 2ND VI.

This match was played at Chiswick on Saturday, May 29th, and resulted in a win for Guy's by six matches to three.

H. L. S. Griffiths and R. H. Lucas were in good form, winning all their three matches, V. T. P. Webster and W. G. Pinching winning two, and H. M. Barber and L. Price Harris one.

2ND VI. v. RICHMOND.

(2ND ROUND OF SURREY JUNIOR CUP.)

This Cup-tie took place at Richmond on Wednesday, June 2nd, the Hospital being unfortunately defeated by five matches to three. G. C. Covell and G. H. Hunt won all their three matches easily, L. Price Harris and E. King, H. L. S. Griffiths and R. H. Lucas losing all theirs, the latter pair being evidently off their game after showing such good form on the previous Saturday.

The Inter-Hospital Cup-ties will take place at Chiswick Park on June 28th, 29th, and 30th next.

Births.

DENYER.—On 30th May, at 26, Albion Street, Hull, Yorks, the wife of Stanley E. Denyer, C.M.G., M.D. Cantab., F.R.C.S. Eng., of a daughter.

EAST.—On May 28th, at 2, North Road, Clapham Park, S.W., the wife of William Norwood East, M.D. Lond., of a daughter.

SPILLER.—On May 23rd, at Tressillian, to Mr. and Mrs. J. E. Spiller, a son.

STEWART.—On May 29th, at Dyffryn, Dulwich, the wife of H. M. Stewart, M.A., M.D., of a daughter.

TA'BOIS.—On the 6th June, at 11, Wickham Road, St. John's, S.E., the wife of Leopold Ta'Bois, L.D.S., of Wimpole Street and Blackheath, of a son.

WALKER.—On May 30th, at Hing Hwa, Fuh Kien, South China, the wife of Dr. Ronald R. Walker, of a son.

Deaths.

GROMITT.—On 21st May, 1909, at Vacoas, Mauritius, John William Gromitt, M.R.C.S., L.R.C.P. Lond., D.P.H., Assistant Sanitary Warden, Mauritius.

MESQUITA.—On March 28th, at Margate, Solomon Bueno de Mesquita, M.D. Lond, of Rosemount, Finchley Road, Hampstead, N.W.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

June.

Sat. 26. 1st XI. v. Granville (Lee) (Home).
2nd XI. v. African Banks (Away).
1st VI. v. Finchley (Home).
2nd VI. v. Highgate "A" (Away).

Mon. 28. Clinical Lecture by Mr. Turner (Otology), 1.15 p.m.
1st XI. v. M.C.C. (Home). Opening of Cricket Week.
(And following day) Inter-Hospital Tennis Championship, Chiswick Park.

Wed. 30. 1st XI. v. Forest Hill (Home).
1st VI. v. Gipsy "A" (Away).
2nd VI. v. St. Bart.'s "A" (Home).

July.

Thur. 1. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Tolhurst).
1st XI. v. Richmond (Home).
Extraordinary General Meeting, Rugby Football Club, 4.30 p.m.

Fri. 2. 1st XI. v. Thespids (Home).
Annual Swimming Sports, Lavington Street Baths, 8 p.m.

Sat. 3. 1st XI. v. Wanderers (Home).
2nd XI. v. Sidcup College (Away).
1st VI. v. Boundaries (Away).
2nd VI. v. Watford (Home).

Mon. 5. Clinical Lecture by Mr. Bellingham Smith (Gynæcology), 1.15 p.m.
1st XI. v. Forest Hill (Away).

Wed. 7. 1st XI. v. Gravesend (Away).
2nd XI. v. Manor House School (Away).
1st VI. v. Sydenham (Home).

Thur. 8. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Price and Lucey).
Annual Garden Party, 3.15 p.m. The Duke of Devonshire will distribute the prizes.

Passim.

MANY of our readers have expressed a desire to possess a portrait of the late Dr. Horrocks similar to other portraits which from time to time have been published by the GAZETTE, which are very convenient for framing, and then form pleasant souvenirs of the hospital and the great men who have been on its staff. We are accordingly issuing, as a supplement to this number, a reproduction by the photogravure process of a photograph of Dr. Horrocks taken and enlarged from a group which has been previously published in the GAZETTE. As we mentioned at the time, this portrait is the last which was taken of our distinguished Obstetric Physician, and was, in fact, taken the day before he resigned his appointment. It has, therefore, a special interest apart from the fact that it is an excellent and characteristic likeness.

IN connection with the Council Election of the Royal College of Surgeons, we would remind Fellows that if they vote by post the voting papers must reach the College not later than 3 p.m. on July 1st, but personal votes may be recorded until 5 p.m. on the same day.

THE following is the draw for the Inter-Hospital Challenge Cup for Lawn Tennis. This event will be decided at Chiswick Park next Monday and Tuesday, June 28th, 29th, when we hope to see Guy's retain the Cup, which we were so successful in winning last year, for the first time in fifteen years.

London St. Thomas's	...	...
St. Bartholomew's Guy's (Holders)	...	...

AN attractive programme has been arranged for the Annual Swimming Sports, which are to be held at the Southwark Baths, Lavington Street, next Friday evening, July 2nd. Besides the ordinary events open to all hospital men—66 yds. handicap and scratch, quarter mile, neat diving, long plunge, full clothes race, and obstacle race—there will be a ladies' race—always a popular feature—an exhibition of life-saving by members of the City Police, an exhibition of diving by four members of the Amateur Diving Association, and a Polo Match, Past v. Present, for which Mr. Graham Marshall is organising the "Past" team. A small orchestra, under the management of Mr. H. Gardiner, will add to the entertainment of the visitors at the sports. Mrs. Steward has kindly consented to give away the prizes. These sports have always been eminently successful in the past, and we do not doubt that this year's meeting will be equally so.

THE Guy's Operatic Society is giving its concert at the Æolian Hall, on Tuesday, July 13th. Items from the Gilbert and Sullivan operas will be given by the Society, by the kind permission of Mrs. D'Oyley Carte. The following well-known artistes are announced to appear:—Miss Rosina Filippi, Miss Lily Elsie, Miss Louie Pounds, Mr. Lewis Waller, Mr. Henry Ainley, Mr. Courtice Pounds, and others. Tickets, which may be obtained from Mr. Irvine, The College, Guy's Hospital, are 10s. 6d. (three for 30s.), 7s. 6d. (three for 21s.), and 5s. (five for 21s.); and a few unreserved at 2s. 6d. and 1s.

ON Monday next a Guy's Cricket Week will open with a match against the M.C.C. This is the first time that such a cricket festival has been arranged by our Hospital, and wishing it all success, we hope that it will become an annual affair.

THE following appointments have been made by the House Committee on the recommendation of the Medical Committee:—House Physicians: W. G. Pinching (Dr. Pitt), W. Johnson (Dr. Shaw). House Surgeons: H. Chapple (Mr. Lane), V. Townrow (Mr. Dunn). Out-patient Officers: A. H. Crook, H. Lee, C. M. Plumptre, W. E. Wallis. Assistant House Surgeons, H. O. Brookhouse (Mr. Steward), H. R. Mullins (Mr. Fagge), St. J. A. M. Tolhurst (Mr. Rowlands), H. C. Lucey (Mr. Turner). Obstetric Resident: L. T. Dean. Resident Medical Officer in Bright Ward: W. H. Trethowan.

ON the occasion of the opening of the new Institute of Physiology at University College by Mr. Haldane, on the 18th of this month, the University of London Officers' Training Corps paraded in the quadrangle, and were addressed in congratulatory terms by the Secretary for War. A respectable contingent of Guy's men who belong to the corps, under the command of Capt. Davies-Colley and Lieut. T. B. Layton, mustered in our own quadrangle before proceeding to University College. We understand, however, that less than half of the total number of Guy's men on the roll put in an appearance, and we look forward to an opportunity of seeing a parade by our own section at its full strength.

THERE is a widespread belief that a great future lies before the actinotherapeutic method of treatment for malignant growths. This subject, which Dr. Lazarus Barlow has made the theme of his Croonian Lectures for the present year, is undoubtedly gaining a firm hold on the attention of the profession, and, no doubt, of the public also. The surgeon realises that in the radium or X-ray treatment lies his most valuable ally. Meanwhile, the literature of the subject, both from the purely technical and from the practical point of view, is steadily increasing. But there is no doubt that properly

conducted research into the limitations and possibilities of the actinotherapeutic method, and further researches into the action of the various rays and emanations on normal and abnormal body-cells, are much needed. We are happy to state that Guy's has once more shown itself in the vanguard of medical progress by the establishment of a "Douglas Research Studentship for original investigation in connection with Actinotherapeutics, with special reference to Cancer." Further particulars of this studentship will be found in our column of "Notices," but we may state here that the honorarium attached to it is of a substantial character, and should secure the appointment of a well-qualified research student, who is to commence the duties of his appointment on the 15th of next month. The endowment of medical research, whose importance Mr. Bonsor emphasized in his Annual Report, is such an essential factor in the future vitality of our medical school that we welcome with enthusiasm this latest development of it, and trust that the Douglas Studentship will enrich both the school and medical science.

AT the annual general meeting of the football clubs, held recently, the following officers were elected for the coming season:—Mr. H. R. Mullins to be Captain, and Mr. E. R. Hind Secretary of the Rugby Team; Mr. C. Witts to be Captain, and Mr. T. L. Jones Secretary of the Association Team. At the end of the meeting Mr. Stringer made an important suggestion for an alteration of the rules, but as it was not on the *agenda* the Chairman directed that a special meeting must be called, and due notice given. Accordingly, an extraordinary general meeting of the Rugby Football Club will be held on Thursday, July 1st, in the Anatomy Theatre, at 4.30 p.m., and Mr. Stringer will move, "That the rules of the Club, with reference to the election of the Captain and Secretary of the First XV. by a general vote at the annual meeting, be altered, and that the Captain and Secretary be elected, a few days before the annual meeting, by a meeting of not less than ten old blues." It is thus proposed that the Captain and Secretary shall in future be chosen by the team themselves, and not, as at present, by the general body of members. For the alteration it may be urged that the players are best qualified to choose their own officers, and that under the present system a majority of the members might conceivably secure the election of officers distasteful to the players and without due regard to the best interests of the Club. On the other hand, against the amended rule, it may be claimed that the present system works well (as shown by the results of this year's meeting), that the objections to it are imaginary ones, and that the general body of members may be a better judge of a man's capacity to fill the posts of Captain or Secretary than the players themselves. In any case, the motion proposes a radical alteration in the rules of the Club, and it is desirable that everyone having views on the matter, either for or against, should attend the meeting, so that the change shall not be made without due consideration. It might be advisable also for members interested in the Association game to decide whether they would wish the motion to be extended to their section. The rules, as they stand at present, apply both to the Rugby and the Association Clubs.

IN a recent letter in the correspondence columns of the *Lancet*, Dr. Shaw outlined the function of the great London hospitals in the following words:—"In the future, voluntary hospitals must base their appeal for support on the grounds that their service is not parochial, but is Empire-wide, and consists essentially in dealing with obscure and difficult cases, and in the making of medical knowledge and its diffusion throughout the world." The subscription lists of most of the great hospitals show amply enough that the support they receive is anything but parochial in its source; our own subscription list, for instance, contains addresses from all parts of the country. In this case, therefore, it is only right that the advantages offered by the hospital should extend equally far. But it is a debatable point whether the hospital ought to provide patients coming from afar with medical and surgical treatment of an ordinary character, such as might very well be provided by provincial hospitals, or ought to confine its charity to the "obscure

and difficult cases" to which Dr. Shaw refers. Take, for instance, the radical cure of inguinal hernia—an operation which is enormously increasing in popularity, and is positively clamoured for by many patients, so that the Resident Surgical Officer's list of cases awaiting admission becomes crowded out with them. In a given year we find that of the 217 patients who came in for this operation, excluding those whose addresses could not be found, twenty-one came from parts of London quite outside the Guy's district, and no less than seventy-seven from the provinces, chiefly, of course, from Kent and Surrey, but also from parts as far distant as Wales.

SIR SAMUEL WILKS has kindly sent us copies of the *Hampstead and Highgate Express*, containing letters by himself, which amply show the vital interest which he continues to take on all sorts of matters, and has shown in these columns on various occasions. The subject of the letters referred to is the reputation of the month of May as an unlucky month for marriage. This superstition is at any rate as old as Ovid, who says, "Mense malum Maio nubere vulgus ait," and that it retains its vitality in spite of its age Sir Samuel Wilks shows by comparing the list of marriage announcements in the *Times* towards the end of April and in the beginning of May. Even on our own modest list of weddings we find the superstition has a very definite effect. We have met people who were so superstitious in the effort to avoid superstitions that they would wish, if possible, to be married on Friday, the 13th of May, and they will get this rare opportunity of flouting three superstitions at once, next year. The great majority, however, of the marrying public avoid May like a pestilence, and it would be interesting to know how the myth arose, and whether it contains the minute grain of truth usual in such myths.

IT is not very often that scenes in novels are laid at Guy's. Hospitals in general, or grotesque parodies of them, of course often figure in the novelist's pages, but hospital local colour painted in detail is rarely found. Guy's has some claim to fame in being the scene of the closing moments in the life of Mrs. Gamp's lord and master, who was laid out here with penny pieces on his eyes; and as the scene of Mr. Bob Sawyer's professional studies. The navvy, in Mr. Kipling's "My Sunday at Home," complains that the mixture the doctor gave him was worse than when he had the "stummick-pump at Guy's." Such small references to the place we come across now and then, but seldom anything more.

WE were interested, therefore, to find several chapters devoted to Guy's in a recent novel by Alice and Claude Askew. Mr. Askew is himself an old Guy's man, and into "Felix Stone" he has put some memories of the Old Dressers' Room and the Front Surgery (which will soon become nothing but a memory to all), the Colonnade and Clinical. The two chief characters in the tale are just saved from drowning in the river below London Bridge; they are brought to Guy's and admitted into Clinical. Before the cases are brought in, we have a glimpse of the take-in firm at supper:—

> ". . . The round table was covered with the rough elements of a feast—a ham cut down to the knuckle, tongue, pressed beef, and kindred luxuries laid out on paper, since the number of plates was insufficient. Bottled beer appeared in great profusion. Several men sat round the table, evidently enjoying the ample repast, while others played cards—the game was "nap"—at a spot on the same table which they had cleared for themselves. A great naked jet of gas flared overhead, and the air of the room was redolent of tobacco."

That was the dressers' room in the Nap Age. In a later chapter we come across the physician's round in Miriam—the student who cannot hear a "long rumbling mid-diastolic murmur of mitral obstruction," the patient who enjoys being examined and the other patient who doesn't, the Physician sarcastic at the expense of the ward-clerk, and the sympathetic nurse who "has a way with her that makes you like her"—they are all there.

As we go to press the Birthday Honours List has been announced, and we find there the name of a distinguished old Guy's man. Mr. Henry Morris, the President of the Royal College of Surgeons, has received a baronetcy.

A Case of Tetanus successfully treated with Serum.

PATIENT was admitted on November 3rd, 1908, having met with an accident whilst out hunting; his horse fell at a five-barred gate, and patient was thrown into a road; he fell on his face, and thinks that the horse also kicked him in the face as it fell.

On admission, patient's lower lip was cut almost down to the chin; there was an irregular jagged cut in the upper lip, involving the right nostril, and there were also several minor cuts in different parts of the forehead and face, and the central and lateral incisor teeth on the left side were knocked out; patient showed no signs of concussion.

Patient was anæsthetised, and the various wounds were well cleaned by means of a nail brush and biniodide of mercury, those wounds requiring suturing being afterwards sewn up with salmon gut sutures. Owing to the jagged nature of the wounds, the edges showed indications of sloughing the next day, and fomentations were applied. Patient's evening temperature was 100°; on November 5th, two days after the accident, as the edges of the wounds still looked sloughy, the wounds were irrigated twice a day with hydrogen peroxide, ten vols., and water, equal parts, and fomentations discontinued; evening temperature 100·6°; the irrigation was continued twice daily for the next four days, and the wounds became much cleaner, and more healthy in appearance. During this time patient's mouth was frequently washed out with a mouthwash.

The stitches had all been removed by the eighth day, and the wounds were looking healthy; the union seemed firm, though one stitch had given way early, in the neighbourhood of the right nostril, owing to the skin flap being somewhat jagged and crushed. The wounds were covered by dry scabs.

On November 8th, the fifth day after the accident, patient's temperature had returned to normal, having been 100·2° on November 6th, and 99° on November 7th. On November 10th patient felt quite fit, and the wounds were looking quite healthy and free from discharge, so it was arranged that he should return home the next day.

On November 11th, in the morning, patient complained of stiffness in his jaw; he stated that he had noticed a little stiffness the previous evening, but had not mentioned it. On examination, the jaw was found to be stiff and rigid, and could not be opened more than about half an inch; there was no stiffness in the muscles at the back of the neck, and no rigidity or tenderness in the abdominal muscles.

At 3.0 p.m. 100 c.c. of antitetanic serum were injected into the subcutaneous tissue of the abdomen; tr. Digitalis ɱx. t.d.s., and Calomel gr. i. were given. At 12.30, night, patient was anæsthetised and the scabs removed from the wounds, and the wounds cauterised with solid silver nitrate; 50 c.c. of serum were given, 10 c.c. being given by means of lumbar puncture, and a few c.c. round the wounds and in the neighbourhood of the facial nerves. Morphia, gr. ¼ was then given.

On November 12th, in the morning, patient felt no pain, and there were no spasms; the jaw was stiff and had closed up somewhat now; no stiffness of the muscles at the back of the neck. Pot. Brom. gr. xv. t.d.s. given; there was some slight vomiting in the morning after the anæsthetic. 20 c.c. of serum, 6tis horis were given. Irrigation with Peroxide was continued.

On November 13th, patient's condition was much the same. The jaw was very rigid, and patient was fed by means of a rubber tube which was passed through the space left by the two teeth being knocked out. Patient complained that, when he dropped off to sleep, his jaw relaxed, but as soon as he moved, it at once contracted, and he thus bit his tongue three or four times during the night. Whilst the wounds were being irrigated with hydrogen peroxide patient had slight spasms of the jaw. Whilst sleeping, patient complained of difficulty in breathing, owing to the rigidity of the jaw, and much relief was obtained by separating the lips by means of a cork placed between them.

On November 14th, patient complained of a headache and feeling of sickness; otherwise his condition was much the same.

On November 15th, the feeling of sickness continued, and the digitalis was discontinued.

On November 16th, patient vomited slightly, and still complained of headache. Bromide was discontinued; 20 c.c. serum were given twice in twenty-four hours. The jaw was slightly relaxed.

On November 17th, patient was much brighter in himself; he still sometimes bit his tongue when he fell asleep, but not so frequently; he complained of headache in the evening.

On November 18th, 20 c.c. serum were given once a day. Patient still had some headache, and an urticarial rash appeared, presumably due to serum.

On November 19th, the right side of the jaw was more relaxed than the left; the rash disappeared. The jaw was gradually becoming more open every day, though the progress was slow. Patient by this time was feeling somewhat hungry, but could only manage fluids. He was much better in himself. Serum discontinued.

On November 20th, patient got up for an hour, tried to eat bread and butter, but could not manage it.

On November 21st, there was a recurrence of the rash, which soon faded; jaw slowly relaxing.

On November 23rd, patient managed to eat some bread and butter.

On November 26th, patient was gradually improving; he managed to eat solids better each day. Liq. arsenicalis ɱiii. t.d.s. given.

On November 30th, as patient's pulse had been somewhat more rapid during the previous three days, the digitalis was given again, three times a day.

On December 3rd, patient walked in the garden.

On December 5th, patient was discharged. He felt very well in himself, and his jaw had relaxed a good

deal, and the front teeth could be separated between half and three-quarters of an inch. Patient was able to take any kind of food without much inconvenience. About the first week in January the last trace of stiffness left the jaw, and patient was very well in every respect.

Altogether 530 c.c. of serum were given. Thus the stiffness of the jaw began on November 10th, a week after the accident, and finally disappeared during the first week in January. At no time were the muscles at the back of the neck or the abdomen involved, the stiffness being confined entirely to the jaw. It can hardly be doubted that this must have been the result of the prompt administration of antitetanic serum in large doses. Perhaps the introduction of serum directly into the spinal canal by lumbar puncture contributed to the satisfactory result. C. E. M. J.

The Irony of it.

I THINK there is a proverb about the difficulty of overtaking a Lie. If there is not, the deficiency should be speedily attended to. Make a statement of flagrant untruth and people will discuss it, believe it, and act on it long after they have forgotten every true word you ever said. Tell the girl you never should have known a false name, and she will find out and remember with some bitterness your real one; tell her your real one, and in five unflattering minutes she will have forgotten it. This is the first thing I would impress upon you.

Secondly, I would remind you of John Willoughby Wood, that is, if you have ever heard of him. There may be some few men here whose elder brothers knew him and to whom his name is therefore familiar. Anyhow, the present Assistant Physicians and Surgeons will probably remember him well, for in his time—he qualified about '93 or 4—he was a particularly well-known figure. He was short and dark, not ill-looking, with small twinkling eyes, an excellent dry humour, and a wonderful talent for bluff. As a saturnine leg-puller he was unrivalled, and his imitations of the Staff of the period—an admirable Staff from the caricaturist's point of view—have perhaps never been excelled. His work interested him little, and his professional career at the Hospital was undistinguished. Happening on a rather lean year, however, he achieved Clinical, and might have reached the dignity of A.H.P. (the O.P.O. of the time) but for an unfortunate incident into which a perverted sense of humour led him. Some day, perhaps, I might write up *that* incident, but not yet.

Withal he was a fair actor, and an admirable artist. I have a GAZETTE caricature of his before me as I write.

My first proposition you may, if you are so unwise, doubt; my second—the illustrious Wood—you may not have heard of; but my third subject you all know, for it is contained in the classic surgical text-book of Close and Starless. Most men I suppose read this book, and in it they come across so many things they have never heard of that perhaps they do not notice that neither they nor anyone else have ever seen a Certain Condition to which is allotted seventeen lines of minute description. Lest you should recognise it, I will call it Hypopyon of the Great Toe, which, of course, is not its real name. But the complaint I refer to under this name you have never seen, and you never will, for there is no such thing, but it basks in its seventeen lines and has been copied into almost all the surgery books of Christendom. Indeed, I saw it mentioned in the Transactions of the Imperial University of Tokio only six weeks ago.

Now J. W. Wood had considerable difficulty in getting through Surgery. He was ploughed once to my knowledge, and possibly more, although he used to read (when he did read) with a man who is now not the least distinguished of our Assistant Surgeons. But the last time he was up he managed the paper fairly well, and with the assistance of a George's man, whom he met in the waiting-room and who had seen four of the cases up, he was not an undiluted failure in the Clinicals. But in the Pathology he was faced by Close, and Close was a hard man to please. Some discreet hedging steered the candidate through the pathology of bone-necrosis, and he spotted a hæmatocele, but his hopes sank like a solid lung when Close began to ask him the pathological conditions which might affect what we have agreed to call the "Great Toe." For Close was writing a monograph on diseases of the "Great Toe" at the time; he knew all there was about it to know, and his opinions, being those of a famous surgeon, were widely different from everyone else's.

Wood was leaning both his elbows on the table and toying with a specimen, and looking straight at Close with that beady twinkle of his I remember so well; and Close, sitting back with his hands intertwined, was saying, "Yes, I grant tubercle and specific disease,—and what else?"

"Traumatism," said Wood, thinking hard meanwhile of what to say next.

"Of course. Go on."

"Hydatids."

"Very rare. Go on, please."

Wood was palpably at the end of his tether. They looked at each other perhaps ten seconds. Then Wood decided on the bluff of his life.

"Well," he said, "I *have* seen hypopyon of the Great Toe."

Now Close never had. He had often thought such a thing might happen, and he had long searched in vain for a case. In fact, his monograph was almost waiting for it. He thought of the Hypopyon as a violinist thinks of a Stradivarius, or a full-back of scoring a try. He leant quickly forward and unclasped his hands. "Ha–ave you," he said, "ha–ave you?" with the drawn-out purr he always used when particularly pleased. "Tell me all about it."

And John Willoughby Wood, who had never seen or dreamt of the possibility of such a condition, fairly let himself go. He soared away from the paltry trammels of the post-mortem room into the brightest realms of scientific imagination. He spoke hard for four minutes, and strained his ears for the bell.

Close nodded. "When did you see it?"

"When I was a dresser."

"Did you show it to your chief?"

"I showed it to the A.H.P. in the front."

"A.H.P.? Oh, yes. Was it taken in?"

"No. It wasn't acute."

"Did anyone else see it?"

"No."

"Where is that A.H.P.? What's his name?"

Wood mentioned the name of an A.H.P. who had recently joined an expedition into Uganda and could hardly reappear for two years.

"Ah! Now then, will you write me to my house a detailed account of the case?" said Close, handing over a visiting card. "I am sorry about the A.H.P., but we must have all about it there is to know. This is important."

"I shall be very glad," said Wood.

Close shook hands with him solemnly. "I am really very much obliged to you, my boy," he said, with his heavy smile.

Then the bell rang. Two hours later John Willoughby Wood learnt he was qualified.

So he wrote the account to Close, and a very good feat of imagination it was, too, for he had plenty of time to write it, and there were no contradictions in his two foolscap sheets. It was very circumstantial indeed. And Close put an abstract of it in small type in the monograph, and the seed fell on good ground, and brought forth a hundredfold. They copied it from book to book, and, one after another, surgeons remembered cases in the days of their youth which must have been hypopyon had they only thought of it. And lecturers spoke of it to students, and it grew and multiplied. And the Americans got it and discussed its connection with malaria, and the French got it and thought it a form of hysteroepilepsy, and the Germans got it and split it into seven hypothetical varieties, and you can look it up unto this day in Hildebrand's article in Billroth and Lücke's Deutsche Chirurgie to see if I lie.

And no one ever saw a case.

Students come and students go, and they all learn up Hypopyon of the Great Toe, for it has got into the big type now. Sometimes they are asked about it by erudite examiners. It will stay in the surgery books, I suppose, till the end of time.

And in the shadow of a beautiful hill in Wiltshire, where the cattle graze sleepily and the blue river trickles its way by the country town, where there is a pleasant little tennis club and a Zenana working party (by the vicar's wife) and an amateur dramatic society, practises unopposed John Willoughby Wood in the seat of his fathers, and very pleasant it is to lie in his garden and hear the river plash between the meadows.

He cures the squire and the peasant, he is not very clever or very stupid, and the people like him very much, and pay him about £850 per annum. He stage-managed Box and Cox for the Dramatic this year, and he still draws quite cleverly. And he gets more and more countrified, and twinkles less and is a little grey, and never reads a surgery book. And he does not know that Close's name is bruited in Patagonia and Timbuctoo as the discoverer of Hypopyon of the Great Toe, and if he did he would probably have forgotten that lonely case, the case that never happened, the case he made up in the flash of a second in the examination hall. He does not even know that the A.H.P. died in Uganda and will never, on earth at any rate, rise up and call him damned.

And when he dies he will sleep with his fathers under the hill, and his stone will only differ from theirs in that for fifty years it will not be so dark a grey. The Salisbury paper, perhaps, will give him a quarter column, and that only if news is scarce. But when Close dies the scientific papers will have special memorial numbers, and there will be wailing and gnashing of teeth all over the world. A Bishop will bury him, and grey-haired Household Words will watch the ashes lowered.

And all this mainly for the lie that Wood told.

For Fate has a warped sense of humour, and as she spins she laughs for ever in her sleeve. So let us all laugh with her and be wise.

NESTOR.

Life in the Indian Medical Service.

BY CAPTAIN WATTS.

On Leave.

HAVING three months' leave and not an overwhelmingly large balance at the bank, we decided to avoid the quick, tiring, and expensive journey into Kashmir by *tonga*, and to adopt instead the old method of marching in from the plains stage by stage.

It is now a fortnight since we left the hot dusty plains behind, and as we have moved up the valley of the Pooneh, fishing as we go, the scenery has become more and more pleasing.

Gradually the scorched bare stony hillocks, rising from the plains, have given place to lofty hills dotted with scanty trees and shrubs; these in their turn have changed; their now grassy sides are thickly covered with pines, while springs and streams show we have left that barren thirsty land below.

Our little Cabul tent is pitched on a small stretch of level turf in an inaccessible glen, lying amidst the towering ranges that bound Kashmir.

Round us are lofty mountains, ice, snow, and rock, silent forests, turbulent streams roaring down from the snows that gave them birth, whilst towering behind the camp, its pure white surface tinted red by the rays of the setting sun, is the Zamir Peak, below which runs the pass of twelve thousand feet we are soon to cross.

We have been here for the past four days after a red bear said to frequent this neighbourhood, but have not been lucky enough to meet him, though we have seen musk deer and come across a leopard.

To explore some *nullahs* distant from the camp, we went out only accompanied by the *shikari*, and stayed for two nights in a *Gujar Zemindar's* (farmer's) dwelling. I don't know which were the worst, the ticks that infested the jungle, or the fleas and other domesticated horrors that lurked in the dark corners of that log and mud-built hut.

To-morrow will be a long day, so we pack up, have an early dinner, and get to bed, taking one last look before we turn in at the towering snowy peaks, silver white in the clear cold moonlight.

Sunrise sees us shivering, hurrying on our clothes, calling for tea, while round a blazing fire in front of the hut, where my servant is quartered, are gathered a group of sturdy Gujar coolies, who are to carry our kit.

After another hour all the loads are arranged and apportioned, not, however, without a great deal of squabbling and protestation on the part of those to whom they are assigned; as a matter of fact all the loads are much below the ordinary weight, but it is a stiff climb, and we shall have to hurry to get across the pass before dark.

Our way first dips down into a deep ravine, at the bottom of which a snow-fed mountain torrent runs roaring down over moss-grown rocks and fallen trees.

We have to cross this, and it is rather a ticklish business, as the only bridge is a pine tree with the branches lopped roughly off, some twenty-five or thirty feet in length, and not much thicker than an ordinary scaffolding pole. Salia Sheikh, the *shikari*, goes first and gives me a helping hand, as I gingerly follow, my clumsy nailed boots giving a very insecure foothold compared to his grass shoes.

As we reach the middle the tree trunk springs up and down under our combined weight, and my sensations as I look down at the foaming torrent below are far from pleasant. With a sigh of relief on my part we step on to solid land again, and turn to watch the coolies cross it. Some go straight ahead as though they were crossing London Bridge, but others have to be led across. My terrier Jim, who is not easily scared, gets a little way across, then turns rapidly round and makes for the bank again. A sympathetic coolie picks him up and carries him across.

We now have a stiff climb amongst the pines, where the ground is carpeted with turf and studded with violets, polyanthus, and many another wild flower, whilst every now and then we put up brilliant plumaged pheasants, which flash in the sun as they skim down over the mountain side amongst the dark tree trunks; in sheltered *nullahs* the snow still lies in deep drifts. Nine o'clock and we have reached some rough huts built by Gujar herdsmen for shelter when they graze their cattle here.

The grass around is bare and stony, the earth sodden from melting snow, which still lies about in patches, whilst the only vegetation are shrubs, gaunt and bare, the little buds on which, however, show that spring is reaching these inhospitable regions.

We halt here for breakfast and let the coolies go ahead.

A magnificent panorama of snowy peaks, black rock, dark green forests, and foaming torrents, lies before us as we squat in front of the fire, one eye intent on watching the rashers frizzling in the frying pan.

We do our own cooking, but the meal, though simple, is very welcome.

Breakfast and a pipe afterwards take the best part of an hour, during which we have leisure to admire the view, and it is with renewed energy that we start our ascent of the pass in earnest.

As the sun becomes more powerful the snow gets softer, and at every step we sink half-way up to our knees, each man stepping in the tracks of the man in front.

As we mount higher breathing becomes more difficult, and we halt every fifty steps or so to take breath.

Half-way up we catch sight of a couple of "*Ram Chikor*," which look very much like geese, as they slowly waddle across the snow.

Time after time we think the summit of the pass is in sight, only to find when we reach it that there is still another crest beyond.

It is 3 p.m. before we reach the top, the coolies coming along well, only a couple having fallen behind.

Twelve thousand feet, an icy cold wind and mid-day frost, are not conditions that tempt one to linger, but we halt a moment to gaze at the fertile valley of Kashmir—*a haven of peace and rest to many a "Sahib" coming* wearied and exhausted from the parched hot Indian plains.

We all put our best foot foremost and stumble down the steep slope in single file, as quickly as we can; every now and then an unusually soft patch of snow lets us through half-way up our thighs.

Very tiring it is, though we are going down hill, and every now and then we halt to take breath and cheer on the coolies.

The sun is setting and we are in the shade; still nothing but a white expanse of snow, marred by an occasional rock; the light slowly fades and only the higher peaks are touched with light, but now we cross from time to time patches of bare stony ground from which the snow has melted. Half a dozen icy cold torrents have to be forded, and then we see a few huts ahead which make us all push on with renewed vigour, for it is now nearly dark and time to decide where we shall spend the night.

We enter the nearest hut only to retire discomfited; the floor is ankle deep in liquid mud, water dripping through from the melting snow on the roof above.

However, a little way ahead is a solitary pine, the ground under which is dry and free from snow; loads are thrown on the ground, pine cones and branches collected and a roaring fire set going, round which we all crowd to warm our cold wet bodies; the bright light from the leaping flames is reflected from the snowy expanse around, for it is past eight and quite dark. Twelve hours' marching on a diet of chocolate and snow water has given us an undeniable appetite, but we are too impatient to wait for a formal dinner to be prepared, so a tin of army rations is heated on the fire, and, washed down by a steaming hot cup of cocoa, affords a satisfying meal. A pipe is now set going and we sit round the fire—*shikari*, coolies, and all of us revelling in the warmth.

They ask me for a little tobacco; it is wrapped in a leaf like a bloated cigarette, and all in turn have a draw, much to their satisfaction.

As the coolies with the tent have turned up last of all I don't wait for it to be put up, but get between the blankets wrapped up in my valise, and after watching the group of lined and wrinkled faces now in deep shadow, and then illuminated by the dancing flames till they grow misty and indistinct, fall asleep, tired but happy, for have I not reached the promised land—Kashmir?

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; The British Health Review; St. Mary's Hospital Gazette; Calcutta Medical Journal; Le Mois Medico-Chirurgical; South African Medical Record; The Stethoscope; U.C.L. Union Magazine; Manchester Medical Students' Gazette; Nursing Times.

Guy's Colonial Club.

THE annual dinner of the above club was held on Friday, June 11th, at the Balmoral Room, Trocadero Restaurant. Mr. Charters J. Symonds occupied the chair, and about thirty members were present.

After the loyal toasts had been duly honoured, Mr. Earle proposed "The Colonies," and Mr. Mullins responded. Mr. Tolhurst, proposing "Guy's Hospital," spoke of the high favour in which it was held in the Colonies. After this toast had been drunk, the company sang "Auld Lang Syne."

Mr. Symonds, proposing the toast of the "Colonial Club," and coupling with it the name of Mr. Stringer, referred to several former secretaries of the club who had worked under himself, and were now holding prominent positions in the Colonies, and worthily representing their hospital in those parts. Referring to New Zealand's priority in the presentation of "Dreadnoughts" to the Empire, Mr. Symonds said that New Zealand had not only sent us men-of-war, but also to the hospital men of power—pre-eminent in games, in intellect, and in popularity. The associations which colonials made over here could not but unite them more closely to the mother country.

Mr. Stringer, replying for Mr. Hoby and himself as secretaries, brought forward several suggestions for changes in the future management of the club, and after discussion the following were agreed to:—(1) That the dinner should be held on a fixed date in future years, and on the motion of Mr. Brown, Empire Day, May 24th, was most appropriately selected as the date. (2) A fixed annual subscription of five shillings, proposed by Mr. Tolhurst. It was pointed out that in this way a small fund would in time accumulate which would enable the club to extend its hospitality.

The toast of "The Chairman," proposed by Mr. Berry, was musically honoured. Mr. Symonds, replying, said he hoped he might have some of the junior members present working on his firms in the future. He wished every success and all prosperity to those Colonial Residents who were leaving us, and said he did not doubt but that others would carry on in the future the splendid work which colonials had always done at Guy's.

Mr. Stringer was re-elected hon. sec. of the club, with Mr. H. Hoby as his assistant on the medical side, and Mr. Stranach as his assistant on the dental side.

During the evening, between the speeches, Messrs. Moberly, Mr. Holmes and George entertained the company with songs and pianoforte solos.

The dinner was a great success, though there were not as many members present as we should have liked to see. We trust that the new arrangements will have the effect of greatly augmenting the attendance at the annual meeting of the club.

Notes on the Extraction of the Teeth.

DENTAL CLINICAL LECTURE,
BY MR. W. A. MAGGS

GENTLEMEN,—It would not be possible to give in one lecture an adequate account of the general principles involved in the extraction of teeth, and it is not my intention to dwell upon the justifications for extractions, my desire being to bring before you some of the chief factors tending to success in the operation.

An extraction may or may not be easy, but a failure acts very prejudicially to the dentist. The first care is that the operation should be performed with as little pain as possible, speedily, dexterously and skilfully, the forceps and the hands of the operator having previously been rendered surgically clean.

The position of the patient in the operating chair is of some importance, the seat being placed moderately high for maxillary, and low for mandibular teeth—the advantage of the latter position was fully recognized by the dentists of a former generation, who went so far as to place their patients upon the floor. High and low are relative terms, and as applied to the seats of the dentist's chair are intended to imply that they are situated respectively about twenty and fifteen inches from the floor. There should be no need for the operator to use a footstool or platform upon which to stand.

The position of the operator, unless he is ambidextrous or left-handed, should have a range of rather more than a quarter of a circle. The operator should stand in front of or slightly to the right of the patient, unless operating with hawk's-bill forceps or an elevator upon the right lower teeth, in which case he should stand on the right but slightly behind the patient. The left hand of the operator should be used for fixing the jaw, the left fore-finger and thumb being most useful for this purpose, and also for supporting the outer and inner plates of the alveolar process.

When removing upper teeth a small serviette should always be placed within the mouth, well behind the extractions, for preventing teeth or roots, which may slip out of the forceps, from falling into the larynx or pharynx—a mishap more likely to occur during anæsthesia.

The procedure is a safe plan to adopt, as the cloth placed behind the tooth to be removed forms an inclined plane, causing the tooth to roll downwards, forwards, and outside of the mouth. This plan becomes with practice a simple routine matter, and in order to become familiarised with its use the towel should be used, as before stated, for all upper teeth, although perhaps not much needed for those situated in the front of the mouth. It is unreasonable to expect the anæsthetist to follow the manipulations of the operator, and to catch the tooth in a spoon, as is done by some anæsthetists.

The direction and amount of force required for dislodging a tooth should as far as possible be gauged beforehand. These points can only be determined after some experience, but it is easy to remember that not much force is required for the teeth of young persons (as the alveolar process is comparatively soft and does not completely encircle the necks of the teeth), for loose or abscessed teeth, for those of delicate women or of aged persons. On the other hand, considerable force may be necessary for the teeth of adults who possess sound osseous development, and for those teeth with short crowns and long roots, exostosed, impacted, or standing alone. The thinness of the outer alveolar process as compared with the inner is an indication that a tooth should usually be levered outwards. It is a mistake to make traction upon a tooth in its long axis, as much greater force is thereby required, and it is wrong to speak of "pulling a tooth." It should be levered against the external alveolar process, flexing but not fracturing the socket. The exceptions to the rule of dislodging the teeth outwards concern the upper incisors, and the mandibular third molars; these latter should be levered inwards, because the external alveolar plate is very dense in this situation, owing to the thickening of the bone by the external oblique ridge.

Upper incisors, their roots being conical, should be extracted by a downward and rotary motion from side to side. Forceps with straight blades and handles are the most effectual for extracting upper incisors, canines and premolars, and their roots. The forceps used for an upper molar are made with blades bent at an angle to the handles, and with grooved surface on the outer blade for adaptation to the space between the buccal roots. It may here be incidentally mentioned that it is useless, when the crown of the tooth is intact, to drive up the blades of the forceps too forcibly, as the part embraced by the points of the blades is the neck of the tooth at the bifurcation of its roots; and if the blades are driven too far they fall again to this part when the tooth is firmly grasped. A similar criticism applies to the use

of forceps for lower molars, but in neither case does it apply to broken-down molars where root forceps are applicable.

The third upper molar is, in my opinion, best removed by what is known as a stout pair of "Read's forceps." Some practitioners, however, prefer the use of the ordinary molar forceps, others use them with buccal and palatal blades alike or bayonet-shaped.

The lower incisors, canines, premolars, and the roots of all mandibular teeth are removed by means of hawk's-bill root forceps; the pin-joint of handle is preferable to the screw, being less bulky, and the width of the blades should vary with the size of the tooth.

The first and second lower molars are generally removed by hawk's-bill molar forceps. Its advantages are the great force that can be applied—this in one direction, chiefly, from the lingual to the buccal surface, or *vice versa*—and the clear view that can be obtained of the field of operation.

Straight lower forceps are useful for second and third lower molars. The tooth can be more freely moved inwards, which is a great advantage when the lingual wall is broken down to the level of the gum, or the tooth itself tilted inwards towards the tongue, besides which, this is the movement required for all lower wisdoms. A far greater range of movement is possible, and by a turn of the wrist, acquired by practice, the operator can appreciate the point of least resistance, and apply the force in that direction. Then, again, wisdoms are better reached by straight forceps, and especially when there is much swelling about the jaw, preventing the mouth from being freely opened.

It will be admitted that some practice is required to use with facility this instrument, and some few seconds may be lost in adjusting it, but the lingual blade having first been applied the labial is afterwards rapidly closed upon the tooth.

It is urged that an operator is at a disadvantage with straight forceps, being compelled to stand in front of the patient and in his own light, but this is not, in my opinion, seriously detrimental.

A mandibular wisdom tooth, impacted or broken down, can best be removed by an elevator, a straight one for power and a curved for safety. The instrument, made of all metal, should be used as a lever of the first order, represented by:—

1. Power. The force used by the operator, the elevator and the hand of the operator being the long arm of the lever.

2. The fulcrum. The alveolar process of the anterior root.

3. Resistance or body to be moved. The tooth.

The flat side of the elevator should be thrust well down from the outside of the alveolar process at an angle of about forty-five degrees with the gum margin, and the handle slightly depressed and rotated forwards a quarter of a circle, so that the tooth is displaced upwards and backwards.

To prevent injury from slipping of the elevator, it should be held firmly, and the right forefinger of the operator should protect the blade to within an inch of its apex. The left fingers of the operator should fix the jaw, and the thumb be placed over the second molar to prevent its displacement, an accident liable to occur unless this precaution is taken. An elevator is also helpful for ill-defined lower molar roots, and for fragments of deciduous teeth.

The elevator is extremely useful in skilled hands, but otherwise it may rightly be regarded as an instrument of torture. I well remember my dread of it when a student, and no doubt a similar feeling exists amongst beginners of to-day.

The blades of all extraction instruments should be serrated, for the purpose of making a secure hold of the tooth.

A successful extraction largely depends upon a proper grasp of the forceps, and by not using them as crushers, as instanced by the action of nut-crackers. The thumb and middle finger should be placed between the handles to prevent undue pressure of the blades crushing the tooth, and failure to adopt this precaution is a common cause of fracture of the tooth. When once the tooth is firmly held in the forceps every movement of the hand should cause a similar movement of the tooth. Some authorities advise the use of splitting forceps in molars, where the resistance presented by the roots is very great. In my experience this method is not called for, and only once, and that early in my career and at the suggestion of the anæsthetist, have I used splitting forceps.

In extractions under anæsthetics, the time being usually limited, it is not wise to change instruments unless absolutely necessary, and it will be found with experience that Read's forceps for upper teeth and roots, and hawk's-bill root forceps for lowers, are those most generally adopted. Whenever in doubt as to employing molar or root forceps, choose the latter. That is, they are generally indicated where the crown is much broken away, and in devitalized teeth—the latter being easily fractured.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council :—

Clinical Assistants.—Messrs. T. Evans, S. J. Darke, T. F. Brown.

Dressers in the Throat Department.—Messrs. H. R. Bastard, L. Bromley, F. Kahlenberg, F. D. Saner, J. G. Saner, T. Stansfield.

Medical Ward Clerks. (Extensions.)—Messrs. A. M. Bodkin, G. R. Hind, J. M. Jarvie, C. D. Killpack (Dr. Hale White); H. H. Davis, A. H. Gool, J. A. Delmege (Dr. Pitt); H. W. Barber, G. T. Mullally, H. G. B. Blackman, T. S. Sharpley (Sir Cooper Perry); H. T. Depree, G. Alan Blake, L. C. D. Irvine (Dr. Shaw). R. S. de C. Bennett, A. J. Frädersdorff, W. E. S. Digby, L. Milton, P. Smith, E. W. Blake, A. Samuel, G. C. Covell, F. N. Doubleday, W. S. Hyde, W. M. Langdon, E. G. Reeve, T. E. Roberts, W. S. Lacey, H. G. Crawford, G. T. Foster-Smith, B. R. Parmiter, P. J. Watkin.

Assistant Surgeons' Dressers. — Messrs. N. S. Carruthers, F. G. Lloyd, P. J. Monaghan, H. L. S. Griffiths, T. S. Allen (Mr. Steward); A. Seabrooke, A. J. McNair, H. P. Warner, O. E. Williams, E. R. Hart (Mr. Fagge); A. H. Todd, N. Mutch, G. Marshall, G. W. M. Andrew, A. Sandison (Mr. Rowlands); A. H. Birks, J. B. Hance, H. Daw, J. L. M. Symns, R. C. Poyser (Mr. Turner).

Assistant Physicians' Clerks.—Messrs. H. V. Leigh, G. C. Lowe, R. Heaton (Dr. Fawcett); C. M. Ryley, W. P. Vicary, B. Blackwood (Dr. Beddard); M. C. Wall, H. L. James, J. H. Campain (Dr. French); L. C. W. Cane, W. E. Levinson (Dr. Hertz).

Surgical Ward Clerks.—Messrs. F. Cook, H. L. Hopkins, V. Glendining, Jap-Ah-Chit, C. F. Constant.

Post-mortem Clerks.—Messrs. G. H. Peall, C. Witts, M. A. E. Duvivier (July—September); D. A. Mitchell, C. C. Tudge (August 16th).

Clerks in the Skin Department.—Messrs. G. T. Mullally, H. W. Barber.

Aural Surgeon's Dressers. — Messrs. F. Kahlenberg, A. E. Rayner, L. Bromley.

Obstetric Dressers. — July–August. — Messrs. D. A. Mitchell (Mr. Targett); N. L. M. Reader (Mr. G. Bellingham Smith).

Civil.

FAGGE, C. H., M.S. Lond., F.R.C.S. Eng., has been appointed Examiner in Anatomy for the Fellowship, Royal College of Surgeons of England.

STARLING, E. H., M.D. Lond., F.R.S., has been appointed Examiner in Physiology under the Conjoint Examining Board in England.

TARGETT, J. H., M.S. Lond., F.R.C.S. Eng., has been appointed Examiner in Midwifery under the Conjoint Examining Board in England.

Naval and Military.

Fleet Surgeon W. J. BEARBLOCK, R.N., is appointed to the *Pembroke*, additional, for the *Vengeance*, and Staff Surgeon R. F. CLARK, R.N., to the *Sirius*.

Lieutenant G. E. MALCOMSON, M.D. Lond., Indian Medical Service, is appointed to act as Superintendent of the Ahmedabad Central Prison.

Territorial Force.

Fourth Southern General Hospital.—The undermentioned are appointed Officers whose services will be available on mobilisation :—

To be Lieutenant-Colonel: H. DAVY, M.D.

To be Lieutenant: G. T. WILLAN.

Trade Notes.

The well-known Firm of EDWARD COOK & Co., LTD., the Soap Specialists of Bow, London, E., who recently secured a record order from the Admiralty of Four Million Bars of Soap, have now received a further honour, being appointed, by Royal Warrant, Soapmakers to their Majesties, the King and Queen of Spain.

Synoptic Chart of Cardiac Examination.

This chart, arranged by JOHN D. COMRIE, M.A., B.Sc., M.B., is intended for the use of both general practitioners and students.

It consists of a cardboard sheath stamped with an outline of the chest and heart, inside of which there slides a sheet of cardboard. Upon the latter are printed the names of the various diseases that affect the heart, together with their physical signs. By the simple manipulation of two tapes, the different diseases are made to show in a space at one side of the chart, and, as each disease appears, its various signs automatically come into place at openings corresponding to the areas of auscultation, the borders of the heart, the situation of the pulse, &c.

Fuller information regarding the symptoms and physical signs of cardiac disease are given in a twelve-page pamphlet contained in an envelope upon the back of the chart; and this pamphlet comprises, in brief, most of what is correctly taught regarding the physical signs of disease in the organ in question.

It is hoped the chart will prove valuable to the junior student of clinical medicine in the simplification of physical signs, which at first he is apt to find very bewildering; also to the senior student preparing for examination who desires a handy and concise memorizer; as well as to the general practitioner, who often wishes for a quick method of referring to the possible meanings of a given physical sign.

The chart will be published shortly by Bale, Sons, and Danielsson, Ltd.

Dental Notes.

WE hear from reliable authority that, owing to the energy of the Dental Board of the Royal College of Surgeons of England, the College Council has determined that all candidates who enter a recognised dental hospital and school on and after October 1st next shall be required, before being allowed to go up for their final examination, to produce a certificate "of having attended at a recognised dental hospital and school a course of instruction in the administration *of such anæsthetics as are in common use in dental surgery.*"

We cannot but feel that "this is a step in the right direction," for it must be remembered, as Mr. Leonard Matheson said in the excellent speech which he made at the recent meeting of the British Dental Association at Birmingham, that the use of "general anæsthetics" is the birthright of the dentist. For were not two of the three principal pioneers in this subject dentists—viz., Horace Wells, and his pupil and partner, William Morton? It is interesting to note that the latter did not restrict himself to nitrous oxide, but also experimented with ether.

Though hitherto it has been optional for our dental students to take an anæsthetic appointment, it is pleasing to note that (owing to the courtesy of the staff anæsthetists attached to our dental school) the majority of them have done so.

We understand, also, that it has been customary for some time, at several provincial dental hospitals, for it to be compulsory for every student to administer "gas" to, at the very least, fifty patients.

We earnestly recommend those of our readers who are interested in anæsthetics and in the proposed legislation, to read Dr. Hewitt's paper, which was read before the British Dental Association at their recent meeting at Birmingham, and will be found in the last issue of their journal.

They will no doubt read with equal interest the splendid speeches of Professor Gilbert Barling and Mr. Leonard Matheson during the debate which followed. A copy of the B.D.A. Journal can be found in the Conservation Room and also in the Library.

Congratulations to Mr. W. H. Edmunds on obtaining the Annual Prize for his paper on "The Application of Photography to Dentistry," which the late Secretary, Mr. F. B. Bull, read before the Dental Society during the last session.

Pass List.

UNIVERSITY OF CAMBRIDGE.—Third Examination for Medical and Surgical Degrees, Easter Term, 1909.—Part I.: F. S. Adams. Part II., Surgery, Midwifery and Medicine: C. C. Holman, C. F. Searle, J. Walker, B. Wallis.

UNIVERSITY OF CAMBRIDGE, June, 1909.—Degree of M.D. conferred:—C. W. Ponder, M.A., Emmanuel.

Notice.

Guy's Hospital Medical School
(University of London).

DOUGLAS RESEARCH STUDENTSHIP

For Original Investigation in connection with Actinotherapeutics.

Applications are invited for this Studentship, which will be awarded in accordance with the following regulations:—

1. The Student, who must possess a registrable qualification to practise under the Medical Acts, is appointed by the Treasurer of Guy's Hospital, on the nomination of a special Board of Electors, and holds his appointment during pleasure for a period of one year.

2. The Douglas Student is required to devote himself to research in Actinotherapeutics, with special reference to Cancer.

3. The honorarium attached to the studentship is £300 for the year, paid quarterly in advance.

4. The Douglas Student shall not hold any office or appointment, or carry on any business or profession which, in the opinion of the Treasurer, would prevent him from devoting himself with due diligence to the prosecution of original research. If, in the opinion of the Treasurer, the Student is engaged in work which would hinder his original inquiries, he may be removed by the Treasurer from his studentship.

5. If the Treasurer is of opinion that for any cause the Student is not fulfilling the purposes of the studentship, the Treasurer will have power to determine that the tenure by the Student of the emoluments of the Studentship shall cease.

6. The Student will be required, unless otherwise permitted by the Treasurer, to carry on his investigations at Guy's Hospital, under the supervision of the Surgeon to the Actinotherapeutic Department. The Student will be required periodically to present to the Treasurer a report stating in detail the investigations upon which he has been engaged, with the results obtained.

7. The Student shall at no time publish the results of the investigations carried on by him during his tenure of the Studentship without the permission of the Treasurer, and shall follow his instructions as to the mode of such publication. He shall describe himself in the record of such investigation as the Douglas Student, and the work, when so done, as done at Guy's Hospital.

8. The Douglas Student will commence the duties of his appointment on July 15th, 1909.

Candidates should apply to the Treasurer, Superintendent's Office, Guy's Hospital, not later than June 28th, 1909, and should furnish copies of not more than three recent testimonials.

In Lighter Vein.

RUMOURS:

INNOCENT AND MALIGNANT.

That a recent dermatological paper in one of the medical journals by a Dr. Bunch emanates from our own Skin Department.

From the Bacteriological Department.—That too many cocci spoil the broth.

That the authorities have removed the warning notice—"Beware of Pickpockets"—from the doorway of the Medical Radiography Department, but that no special significance was at any time to be attached to its presence there.

That the said notice might be more appropriately displayed in the Club Smoke Room.

From Bell's department.—That the proof of the prescription is in the poisoning.

That a proposal to record hospital matrimonial news in the GAZETTE has been abandoned through lack of space.—(Rotter's Agency.)

That special wards for children are shortly to be opened in the hospital.*

From the Skiagraphic Department.—That whereas Joshua required a miracle in order to cross Jordan, one of our physicians did it the other day by merely asking if anyone ever could diagnose anything by means of the X-rays.

That in future the Externs are to be housed and fed at the expense of the hospital.*

And that a start has been made with the June externs.

That the following passage occurs in a recent text-book on Operative Surgery, and deserves to take one of *John Bull's* biscuits:—"Treatment of Nævi by means of Liquid Air. *First obtain your liquid air . . .*"

That in future no more puns will be made on the words:—fagge, bell, French, pitt, shaw, lane, etc.*

From the G.P.—That an ounce of practice is worth a ton of therapy.

That standing orders can never lie.*

From the Medical Wards:—That Calmette's Reaction is less in the public eye than formerly.

That harmony is restored among the members of the Choral Society.

That Queen Anne is dead. [Official.]

*No reliance must be placed on these rumours. They are beginning to break down.

CANNED MUTTON.

Papers by Guy's Men.

A. P. Beddard, M.A., M.D. Cantab., F.R.C.P. Lond.; M. S. Pembrey, M.A., M.D. Oxon.; and E. I. Spriggs, M.D. Lond., F.R.C.P. Lond.: The Relation of Acidosis to the Carbon Dioxide of the Blood in Diabetic Coma.—*The Lancet*, 19th June, 1909.

W. Sampson Handley, M.S. Lond., F.R.C.S. Eng.: Internal Hernia; Extensive Resection of Gangrenous Ileum; Recovery.—*The Lancet*, 12th June.

W. Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng.: An Address on the Operative Treatment of Fractures. Delivered before the American Medical Association, Atlantic City, New Jersey, U.S.A., on June 9th, 1909.—*The Lancet*, 12th June, 1909. An Address on Chronic Intestinal Stasis.—*British Medical Journal*, June 12th, 1909.

Change of Address.

David Forsyth, M.D., D.Sc. Lond., from 19, Harley Street, W., to 43, Queen Anne Street, W. (Telephone 326 Mayfair.)

B. H. Palmer, M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S. Eng., from Guy's Hospital to Victoria Hospital, Folkestone.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Reviews, etc.

The price of books submitted for review should in every case be stated.

Further Advances in Physiology. Edited by Leonard Hill. (Arnold & Co.) Price, 15s.

There is a growing tendency in the stress of our modern civilization to acquire knowledge in a tabloid form, a tendency which inclines the student to neglect original papers, or at most to hurry through the summary appended by the more considerate of authors. Much as such an attitude of mind is to be deplored, it must be catered for, and this, the book under consideration, does in an admirable manner.

Some of the questions which have of late loomed large on the physiological horizon are treated by authors thoroughly conversant with their subjects, and an excellent résumé is given of recent researches, as well as an exposition as to the way in which such work does or does not agree with our previous ideas on the subject.

The present volume treats principally of the experimental side of physiology, a former volume (*Recent Advances in Physiology*, edited by Leonard Hill) having been devoted mainly to chemical and metabolic problems.

Some of the sections are, in the main, reproductions of the courses of advanced lectures held in the University during the previous year, and those who had the pleasure of listening to them will need no further assurance of their excellence and interest.

In the first chapter Professor Moore gives us some very suggestive ideas as to the inter-relation of proteins and mineral salts in cell metabolism, and deals a strong blow at the "membrane" theory, which has done so little to help, and so much to hinder, physiological thought on this subject.

Mr. Martin Flack gives us a clear and concise account of the present position of the controversy as to the myogenic or neurogenic origin of the heart beat, as well as an account of recent work on the auriculo-ventricular bundle of His. One might, perhaps, have desired a rather fuller account of experimental methods in this section, but, seeing that the whole book is essentially a résumé, reasons of space no doubt interfered.

Dr. Hill's account of Carrel's work is, however, unpardonably brief; for work of such vital surgical importance deserves more than the five pages he allots to it. The remainder of this section is detailed and suggestive, though we should have liked an account of Crile's work on surgical shock, instead of the mere note given by the author.

Professor Keith's article on the mechanism of respiration shows us how useful is anatomy in the study of function, and how necessary a part post-mortem observations play as an aid to more direct experiments on living animals.

Dr. Pembrey's chapter on muscular work is, as is usual with his writings, bristling with argument and suggestion, and all the problems of physiological sociology, from the diminution of the birth-rate to the compulsory education of children, are touched on and disposed of in his inimitable manner.

Dr. Baton on cortical localization is extremely clear and interesting, and we hope that his example in overstepping the ridiculous line which in the past has been drawn between physiology and psychology will be followed by future writers on cerebral physiology.

Indeed, for the whole book there can be nothing but praise, tempered with one regret—it is too brief. Brevity may be the soul of wit, but it certainly is not that of knowledge; and a collection of results, however interesting, adds little to the real knowledge of the student, unless he is also acquainted with the means and methods by which they were acquired.

We look forward with pleasure to the other volumes of "more," "most recent," and even "furthest" advances which the editor promises us in his preface.

Common Disorders and Diseases of Childhood. By George Frederic Still, M.A., M.D. Cantab., F.R.C.S. Lond. Physician for Diseases of Children, King's College Hospital, and Physician to Out-patients, Great Ormond Street, Children's Hospital. (Henry Frowde, and Hodder & Stoughton.) Price, 15s.

This interesting book from the pen of Dr. Still is a collection of lectures and reprints of original articles which have appeared from time to time in the medical press. The author has been associated with Dr. Goodhart in the later editions of his well-known book, and the present volume lays no claim to be considered a Manual of Children's Diseases. There are, however, some very interesting articles supplemented by tables of statistics obtained from the writer's out-patient rooms at Great Ormond Street and King's College Hospital. In particular the chapters on "Fever of Obscure Causation," "Jaundice," "Nervous Children," and "Indigestion," seem to us to be valuable contributions to the literature dealing with illnesses of child life. The book is dedicated to Dr. Goodhart, whose style of writing the author obviously adopts. At times, however, he is too verbose, and we think that in subsequent editions a little judicious condensation will make the book more readable without detracting from its value. In the production of the work the publishers fully maintain the high standard of the Oxford Medical Publications.

Sprains and Allied Injuries of Joints. By R. H. Anglin Whitelocke, M.D., F.R.C.S. (Henry Frowde, and Hodder & Stoughton). Price 7s. 6d. net.

The author points out that such a book as this is wanted for several reasons. The subject is inadequately presented in the text-books. Radiography has greatly modified our views upon it, showing especially that sprains are more often accompanied by fracture than is usually believed to be the case. This class of injury, too, is a happy hunting ground for the quack and the bone-setter; whilst the medico-legal aspect is assuming

greater importance, more so since the passing of the new Workmen's Compensation Act.

For many years the author has paid attention to this subject, and his connection with Oxford University provided wide experience of athletic injuries. The book has much of interest, and attention is directed to the following points :—the treatment of simple sprains neither by heat nor cold nor immediate massage, but by firm elastic pressure (p. 22) ; the operation of exploring the knee-joint by vertically splitting the internal lateral ligament (p. 123) ; the methods for reducing a displaced semilunar cartilage (p. 140) ; the account of hernia of muscles (p. 170) ; and the important rôle ascribed to the periosteum in traumatic ossifying myositis (p. 60).

Two warnings are given against conventional modes of treatment. The first is not to apply immediate massage in cases of effusion. "It is an undoubted fact that, given a joint with commencing effusion, rubbing, however gently performed, will at once increase the extravasation, and if persevered in for any length of time will lead to marked increase of tension and even pain. Nor is it difficult to understand that a hæmorrhage resulting, say, from a laceration of a large muscle like the crureus or rectus abdominis will be increased by manual manipulation, and this is just what actually does take place when immediate massage is applied to any large collection of blood" (p. 212). The second warning is against the indiscriminate and excessive employment of rest. The bone-setter treats everything by movement, the practitioner is too often inclined to use prolonged fixation. Mr. Whitelocke thinks it strange to treat an injury to a joint, constructed for movement, on the same lines as an injury to bone which has an opposite function. He is much in agreement with Sir Wm. Bennett in his recent book on diseases of the knee-joint when he teaches that the fear of the supervention of tubercle upon a sprain is ungrounded in the absence of local heat (p. 42). Passive movements are condemned as of little physiological value.

The Operative Treatment of Chronic Constipation. By W. Arbuthnot Lane, M.S., F.R.C.S. (James Nisbet & Co.) New edition. Price 2s. 6d. net.

Mr. Lane, in the larger part of his book, describes the pathology of "deficient and defective drainage of the alimentary canal." There are, we believe, many who deny absolutely both his facts and his conclusions, but, on the other hand, there are some to whom Mr. Lane has so often demonstrated the same changes and the same symptoms in a patient that they are led to believe he is undoubtedly correct on many of the points about which he writes. Now if we recognise some of these things, we must, in all fairness, allow that the others may be as he describes, though we have not seen them sufficiently often, or marked so definitely, as to convince us that they are so. For instance, we may agree with him in his description of the dropping of the various parts of the colon, of the kinks thereby formed, and of certain of the adhesions in connection with it, and yet we may hold an open mind as to whether cystic degeneration of the left ovary is a part of the same pathology. Or again, we may believe, as he does, that the harsh dry skin and its pigmentation are due to absorption from the large gut without being fully convinced that the respiratory troubles and various degenerations described by him are also due to such absorption.

We cannot but think that much of the opposition to Mr. Lane's work is due to the fact that many refuse to discuss the possibility of any of his observations being correct, and approach the subject with the primary intention of finding him wrong. Such must be the miserable attitude of the author whom Mr. Lane quotes on page 52 of his book. Others again feel that they cannot agree with him *in toto*, and find it hard to decide how far they are in accordance with him.

Yet Mr. Lane has undoubtedly done valuable work in pointing out a possible way in which many varying symptoms may all be ascribed to one cause, and so indicating a line along which treatment may be carried out. There is a class of patients who pass from one practitioner to another and are variously treated with but little good result. The physician finds them with headaches and gives them drugs, the gynæcologist finds they have pains lower down and curettes the uterus ; the dermatologist observes they are dark around the eyes, and calls it cloasma uterinum, and the surgeon removes their appendices and stitches up their kidneys. It is in bringing before the profession the possibility that all these things may be part of one and the same process that the value of Mr. Lane's work lies. Yet we think there is one important criticism on his work which has hardly been touched on, namely, that he does not go far enough. He describes the symptoms and changes of deficient drainage with the remote results dependent on it, but he does not tell us anything of the primary cause of such deficiency. It is upon this point, we think, that the treatment which is described in the last part of this book will ultimately stand or fall. If the inactivity of the colon is itself the primary cause, then the removal of this organ should give permanent relief to these people ; but if, on the other hand, this inactivity is but the connecting link between the primary cause and the changes described by him, then the operations advocated cannot but be of merely temporary advantage.

Livingstone College Year Book, 1909. (Livingstone College, Leyton, E.) Price, 6d.

The Year Book of Livingstone College for 1909 contains, in addition to the report of the College which has been issued previously, matters of great interest to all who are concerned in Tropical travel. Among its contents will be found Rules of Health for Missionaries in the Tropics, drawn up at the instance of the Association of Medical Officers of Missionary Societies, and these contain, in a very small compass, information which is needed by all Europeans going to the Tropics as to the preservation of their own health. These rules are absolutely up to date, based upon the most recent researches in the subject of Tropical Hygiene, and should

prove of the greatest value. There is also a careful *résumé* of a year's progress in Tropical Medicine, including interesting particulars concerning the Sleeping Sickness Bureau, and the latest suggestions as to the methods of dealing with this great scourge of Tropical Africa. There are also Notes on Outfit, based upon the exhibit of outfit now being held at the Royal Agricultural Hall, entitled, "Africa and the East," and news from Livingstone College students, showing the way in which Medical and Surgical knowledge gained at the College has been put to practical effect.

Sport.

Guy's Athletic Sports.

THE Annual Sports were held at Honor Oak Park on Saturday, June 5th. Despite the unsettled weather, there was a moderate gathering of spectators, although one feels bound to admit that better support might well have been given. The sport, on the whole, was very interesting, and some keen finishes were provided. Good form was shown by several freshmen, prominent among whom were Stokes, Evans and Fry. By means of successes in the 220 yards, 120 hurdles and shot, Stokes was enabled to secure the Lucas Cup, Browning, last year's holder, being second. The "Inter-Year" Tug-of-War Competition for the cups kindly presented by Dr. French, was the most popular event of the afternoon, whilst much amusement was caused by the donkey race, for which a large entry had been secured. After the sports, Mrs. Turner very kindly presented the prizes to the successful competitors. Officials:—Judges—Messrs. C. H. Fagge, F. J. Steward, T. G. Stevens, P. Turner, H. C. Cameron, S. W. Daw, T. B. Layton. Referee—Mr. J. Fawcett. Starter—Mr. H. S. Depnez. Hon. Secretaries—Messrs. H. F. Renton and H. N. Eccles. The details are appended:—

100 YARDS SCRATCH RACE.—Heat Winners: H. W. Evans, A. B. Danby, A. L. Stokes, B. Sampson. Final: Evans 1, Stokes 2, Sampson 3. Won by three yards, a yard between second and third: time 10⅗ secs.

PUTTING THE SHOT.—A. L. Stokes, 32ft. 0½in., 1; S. H. Browning, 29ft. 6in., 2; R. G. Oram, 28ft. 9in., 3. Handicap: Stokes, scratch, 1; Oram, allowed 2ft., 30ft. 9in., 2; Browning, scratch, 29ft. 6in., 3.

HALF-MILE HANDICAP.—G. D. Eccles, scratch, 1; F. G. Godding, 20 yards, 2. Won easily; time 2 min. 12 sec.

100 YARDS HANDICAP.—Heat winners: H. W. Evans, scratch, 10⅗ sec.; C. H. Medlock, 2 yards, 10⅗ sec.; A. B. Danby, 2 yards, 10⅗ sec.; W. Gwyn-Davies, 3 yards, 10⅗ sec. Final heat: Evans 1, Danby 2, Davies 3. Won by two yards, fair third; time, yard inside 10⅗ sec.

HIGH JUMP.—S. H. Browning, 5ft. 5in., 1; R. G. Oram, 5ft. 2in., 2; F. G. Godding, 5ft. 1in., 3. Handicap: Godding, allowed 6in., 5ft. 7in., 1; Browning, scratch, 5ft. 6in., 2.

440 YARDS HANDICAP.—A. B. Danby, 7 yards, 1; H. Mather, scratch, 2; J. A. Ryle, 10 yards, 3. Won by a yard, poor third; time, 53⅕ sec.

120 YARDS HURDLES.—Heat winners: H. F. Renton, S. H. Browning, A. L. Stokes, R. G. Oram. Final heat: Stokes 1, Browning 2. Won easily by 10 yards. Renton would certainly have been second but for a bad fall at the last obstacle; time 17⅕ sec.

ONE MILE SCRATCH RACE.—W. K. Fry 1, A. P. L. Johnson 2, N. E. Farr 3. Won anyhow, fifteen yards dividing next two; time 4 min. 49⅖ sec.

THROWING THE HAMMER.—W. G. Tucker, 103ft. 6in., 1; S. H. Browning, 76ft. 2in., 2; R. G. Oram, 75ft. 4in., 3. Handicap: Tucker, scratch, 103ft. 6in., 1; Oram, allowed 25ft., 100ft. 4in., 2.

220 YARDS FLAT RACE.—Final Heat: A. L. Stokes, 1, H. W. Evans, 2, B. Sampson, 3, H. Mather, 4. Won by two yards at the second attempt, a foul causing the race to be re-run; time 23⅕ sec.

TUG-OF-WAR.—"Second year" men beat "Old Crocks" by two pulls to one.

LONG JUMP.—B. Sampson, 18ft. 4in., 1; E. R. Stone, 17ft. 10in., 2; S. H. Browning, 17ft. 8in., 3. Handicap: Stone, 9in., 18ft. 9½in., 1; Sampson, scratch, 18ft. 4in., 2. Stone did the additional 2½in. in an extra jump.

440 YARDS HANDICAP EMPLOYEES.—Hanson 15 yds., 1; Wiltshire, 80 yds., 2. Won by 6 yds.: time 60⅕ sec.

120 YARDS HURDLES HANDICAP.—Heat Winners: H. F. Renton, owes 15 yds.; S. H. Browning, owes 10 yds.; A. L. Stokes, owes 10 yds; R. G. Oram, scratch. Final Heat: Stokes, 1; Renton, 2. Won by 2 yds.; time 19⅗ sec.

THREE MILES FLAT HANDICAP.—W. K. Fry, scratch, 1; C. E. Rice, 250 yards, 2; F. S. Adams, 250 yards, 3. Won easily, a fine race for second; time 16 min. 19⅘ sec.

220 YARDS HANDICAP.—A. B. Danby, 5 yards, 1; H. Mather, 5 yards, 2; A. L. Stokes, scratch, 3. Won by a yard, less dividing next two; time 23⅕ sec.

440 YARDS FLAT RACE.—H. Mather 1, A. B. Danby 2. Won by three yards; time 54⅘ sec.

880 YARDS FLAT RACE.—G. D. Eccles 1, W. K. Fry 2, N. E. Farr 3. Won easily; time 2 min. 12⅘ sec.

ONE MILE HANDICAP.—J. A. Pugh 1, G. D. Eccles 2. Won easily; time 4 min. 51⅘ sec.

THREE MILES FLAT RACE.—W. K. Fry 1, A. F. L. Johnson 2. Won easily.

United Hospitals Sports.

On Wednesday, the 23rd inst., the United Hospitals Athletic Sports were held at Stamford Bridge, and resulted in a win for the London Hospital, after a dramatic finish, Guy's being beaten by 59 points to 55.

The attendance, though ridiculously small for such a meeting, was, at all events, above the average of the past five years, and at the conclusion the prizes were presented by Lady Fripp. Sir Alfred Fripp, the new president of the United Hospitals Athletic Club, was also present throughout the afternoon, and kindly volunteered

to act as a judge, in the absence of the majority of the gentlemen whose names were on the programme as acting in that capacity.

The afternoon contained more than one sad disappointment for Guy's supporters, for in the first race, the 100 Yards, the incompetence of the individual who deputised for the official starter, resulted in Stewart, of London, getting away ahead of the pistol, and so just beating Evans, our first string, for second place.

In the Hammer Throwing, again, our luck was conspicuous by its absence, Tucker, our first string, having the misfortune to break his hammer after the first throw, and being unable to get it satisfactorily mended. He was, therefore, obliged to be content with second place instead of the first, which had seemed quite a certainty for him. It should be added that the London representative, P. L. Foote, accomplished a quite miraculous performance, throwing 104 feet, this being no less than 22 feet better than his previous best. We wish to offer him our heartiest congratulations on his fine effort, which just turned the scales in favour of the hospital he represented.

To turn to the more cheerful side, W. K. Fry ran as well as his most confident admirers had anticipated, and credited us with two firsts, the Mile and Three Miles, R. M. King also obtaining a capital second in the latter event.

In the Hurdles, H. F. Renton just snatched victory in a desperate finish from Rice of the London, and thoroughly earned the many congratulations that he received on his win.

The 220 Yards was a veritable triumph for Guy's, for a splendid race saw H. W. Evans and A. L. Stokes both beat A. C. Palmer, the London first string. Evans, who was third twenty yards from the tape, just succeeded in getting up on the inside to beat Stokes by a foot.

In the Half-Mile, N. E. Farr, the Guy's second string, running in strict accordance with his instructions, cut out a rattling pace for 500 yards, while G. D. Eccles, running with splendid judgment, hunted home his formidable opponent, T. H. Just, of Bart.'s, in capital style, and credited Guy's with a useful second.

Another second place was obtained in the High Jump by S. H. Browning, who cleared 5ft 5½in, losing to Paget-Tomlinson of London, who, with a jump of 5ft 6½in, was evidently on the top of his form.

With one event to be decided, Guy's led by 55 points to London's 49, and there was an atmosphere of excitement as the men went to their marks for the Quarter Mile, the last race, such as has not been known in these sports for a great many years.

The race was undoubtedly a great one, though it brought us defeat, Palmer's win bringing the London total to 59 points.

Mather led at a tremendous pace for more than 300 yards, with Palmer at his elbow all the way, and Just lying five or six yards further back.

All round the last bend Mather and Palmer fought for the lead inch by inch, but at the distance it was clear that Mather was almost run out, while Palmer was certainly in little better plight, and Just, going more easily with his long raking stride, was creeping up.

All up the straight the leaders contested the race with magnificent pluck, though both were merely staggering along. Twenty yards from home Mather's strength was quite gone, and Just, coming up with a rush, overtook him and almost caught Palmer at the post, but failed to do so through lying too far back in the early stages of the race.

To Mather we offer our sincerest condolence, and assure him that his splendid effort to win the Shield for Guy's made an impression upon those who witnessed it that will last for a very long time. If pluck could have won the race it would not have been lost to Guy's, and Mather could not be held to blame either for his judgment in running the race, or for the fact that his strength was not quite equal to the task. Undoubtedly he did his best, and no one can do more.

London University Sports.

These Sports were held at Perivale on Friday, June 11th. Guy's representatives were very prominent during the afternoon, and were successful in gaining the first place among the Colleges by means of several good performances. Special mention should be made of Browning's high jump (5ft. 5in.) and Tucker's aim in the hammer. Fry showed good form in winning the three miles, and was placed third in the mile. Evans fought out a grand finish with Haley, of King's, in the 100 yards, and was only beaten on the tape, and G. D. Eccles proved himself to be a courageous runner by gaining second place in a fast half mile. The Guy's Tug-of-War Team had no difficulty in repeating their success of last year, being much too strong and scientific for their opponents.

Cricket.

GUY'S v. UNIVERSITY COLLEGE HOSPITAL.

Played at Chiswick, Tuesday, June 8th. University won the toss, and batted first. Kahlenberg and Rice shared the attack, the former's first ball of the day taking a wicket. University's total reached 247, Kahlenberg taking 5 wickets for 81. On Guy's going in to bat runs came slowly. Montgomery played a sound innings of 67 and was then out l.b.w., the score being 83 for 4. The next two wickets fell at the same total, and although the last four wickets put on 110 runs, Guy's were all out for 195, thus losing their first Cup Tie by 52 runs. Scores:—

UNIVERSITY COLLEGE HOSPITAL.

R. N. Woodsend, b Kahlenberg	0
H. L. Tasker, c Birks, b Kahlenberg	87
St. J. Buxton, c Digby, b Rice	8

H. O. Tha, c Rice, b Kahlenberg	26
W. J. Beauchamp, b Kahlenberg	22
R. P. Jones, lbw, b Digby	15
E. B. Sunderland, b Kahlenberg	0
F. H. Boyen, b Digby	3
H. O'Mara, not out	22
A. A. Henderson, c Digby, b Andrews	33
C. J. Rogerson, b Montgomery	2
Extras	29
Total	247

GUY'S.

M. M. Munden, run out	0
C. H. Medlock, b Beauchamp	24
G. Andrew, c Woodsend, b Rogerson	9
A. H. Birks, b Beauchamp	35
R. Montgomery, lbw, b Beauchamp	67
H. Lee, b Beauchamp	0
G. Bergh, b Beauchamp	0
W. E. S. Digby, c Tasker, b Beauchamp	4
W. T. Clarke, c Jones, b Tasker	23
F. Kahlenberg, not out	13
C. E. Rice, b Beauchamp	9
Extras	11
Total	195

GUY'S v. GRANVILLE.

Played at Lee, Wednesday, June 9th, and resulted in a win for Guy's. The scoring in this match was very heavy, over 600 runs being obtained in the day. Granville batted first and knocked up 253, Harris taking 5 wickets for 42. Guy's replied with a total of 349 for 8 wickets. H. D. Wyatt made his second consecutive century for the Hospital, scoring 121 before being caught out. Harris made a useful 69 not out. Scores:—

GRANVILLE.

W. Cockrell, run out	33
S. Platt, c Munden, b Rice	20
K. E. M. Barker, b Harris	43
A. P. Weber, c Rice, b Wyatt	0
A. S. Johnstone, b Harris	93
J. P. Clarkson, c Miller, b Harris	16
F. E. Lauder, b Harris	18
Wingham, b Kahlenberg	5
M. D. Browne, c. Miller, b Kahlenberg	4
H. A. Levinson, b Harris	1
A. Perch, not out	1
Extras	19
Total	253

GUY'S.

G. Andrew, c Lauder, b Wingham	6
M. M. Munden, b Weber	29
H. D. Wyatt, c Cockrell, b Johnstone	121
F. C. Hunôt, c Cockrell, b Wingham	41
W. C. Miller, c sub, b Browne	21
Harris, not out	69
B. F. Sampson, b Johnstone	2
F. Kahlenberg, c Perch, b Wingham	36
P. S. Humm, b Wingham	0
C. E. Rice, not out	0
Extras	24
Total for 8 wickets	349

E. J. Rhys Evans did not bat.

GUY'S v. LESSNESS PARK.

Played at Honor Oak Park on Saturday, June 19th, and resulted in a win for Guy's. Unfortunately only eight of our opponents turned up. Lessness Park won the toss and batted first, making 46. Guy's knocked up 279 for 9 wickets and then declared. Munden made 76 by some hard hitting, and Saner played a good innings for 41. Lessness Park, on going in a second time, lost 2 wickets for 49, when rain stopped play for the rest of the day. Scores:—

LESSNESS PARK.

C. G. Beasley, c Munden, b Kahlenberg	4
W. Sevenoaks, b Kahlenberg	0
G. C. Griffiths, c Lee, b Price	12
C. Reilly, not out	18
E. Upton, b Rice	0
J. M. Rodd, b Kahlenberg	4
J. A. Grice, b Rice	0
Jenner, run out	4
Extras	4
Total for 7 wickets	46

GUY'S.

C. H. Medlock, b Upton	31
A. H. Birks, b Upton	37
M. Munden, c Rutter, b Upton	76
H. Lee, b Upton	8
G. Bergh, c Jenner, b Rutter	23
F. D. Saner, b Griffiths	41
F. C. Hunôt, not out	28
F. Kahlenberg, c Grice, b Jenner	0
C. E. Rice, b Griffiths	2
E. J. Rhys Evans, c Shepherd, by Rutter	4
W. C. Miller, not out	8
Extras	21
Total for 9 wickets	279

GUY'S v. HAMPSTEAD.

Played at Hampstead on Wednesday, June 23rd, and resulted in a drawn game in favour of the Hospital. Guy's won the toss and batted first. The first wicket fell at 40, and then five more wickets in quick succession, the score being 63 for six. Miller then joined Wyatt, and this partnership realised 160 runs, both batsmen showing fine form. Miller left for a splendid 80, and Wyatt went on and obtained his third century for the Hospital. At 304 for nine the innings was declared. Hampstead had two hours and a half to make the runs in. Nine wickets were down for 238, when the stumps were pulled up. Munden obtained four for 39, and Kahlenberg three for 77. Scores:—

GUY'S.

C. H. Medlock, c Anderson, b Kanga	14
A. H. Birks, c Foster, b Kanga	23
M. M. Munden, run out	3
H. D. Wyatt, b Hale	107
G. Andrew, c Pawling, b Rigby	4
F. D. Saner, b Kanga	0
G. Bergh, c Foster, b Kanga	0
W. C. Miller, c Rowley, b Marsden	80

F. Kahlenberg, not out	33
J. E. Rhys Evans, b Hale, 1	1
D. Thomas, not out	5
Extras	34
Total for 9 wickets	*304

HAMPSTEAD.

A. Anderson, run out	19
H. D. Kanga, c Thomas, b Kahlenberg	46
B. S. Foster, b Wyatt	25
E. L. Marsden, c Wyatt, b Kahlenberg	22
J. Donaldson, c Andrew, b Munden	45
F. Rowley, b Kahlenberg	26
A. J. Orr, b Munden	16
G. H. Rigby, c Wyatt, b Munden	1
W. S. Hale, c Wyatt, b Munden	16
W. Pollock, not out	0
S. S. Pawling, not out	1
Extras	21
Total	238

*Innings declared.

Lawn Tennis.

1ST VI. v. BLACKHEATH.

This match took place at Blackheath on Wednesday, June 9th, when the hospital were defeated by five matches to three. F. J. Cutler made his first appearance for us this year. Result:—

F. J. Cutler and L. Price Harris lost to G. F. Card and L. F. Cass, 4–6, 6–8; beat R. C. Mott and H. W. Anderson, 6–4, 2–6, 6–4; lost to D. S. Tucker and H. E. Relf, 3–6, 2–6.

A. S. Roe and R. Curle lost to Card and Cass, 10–8, 0–6, 2–6; beat Mott and Anderson, 6–1, 3–6, 6–4; lost to Tucker and Relf, 1–6, 3–6.

G. C. Covell and G. H. Hunt lost to Mott and Anderson, 0–6, 2–6; beat Tucker and Relf, 5–7, 7–5, 6–2.

1ST VI. v. BALLIOL COLLEGE, OXFORD.

This match took place at Oxford on Saturday, June 12th, in most unfavourable weather, and resulted in a victory for the hospital by five matches to three. H. Sharpe was unable to play, his place being ably filled by M. M. Adams. Result:—

H. Chapple and M. M. Adams lost to K. J. Singh and E. N. Blandy, 8–10, 9–7, 4–6; beat E. Tatham and A. L. S. Wood, 6–2, 6–2; beat R. E. L. Wingate and A. W. A. Leeper, 6–0, 6–4.

R. Curle and A. S. Roe beat Tatham and Wood, 7–5, 6–1; beat Wingate and Leeper, 6–4, 3–6, 12–10.

G. C. Covell and G. H. Hunt lost to Singh and Blandy, 3–6, 7–5, 3–6; beat Tatham and Wood, 1–6, 6–1, 7–5; lost to Wingate and Leeper, 3–6, 4–6.

2ND VI. v. HERTFORD COLLEGE, OXFORD.

This match was played at Oxford on Saturday, June 12th, in very unfavourable weather, the 2nd VI. being defeated by six matches to three. H. L. S. Griffiths and R. H. Lucas were in good form, winning two of their three matches.

2ND VI. v. SIDCUP "A."

This match was played at Sidcup on Wednesday, June 16th, and resulted in an easy win for us by six matches to three, there being no need for playing the remaining three.

1ST VI. v. GIPSY.

This match was played at Honor Oak Park on Saturday, June 19th, and unfortunately had to be abandoned, on account of rain, at the end of the second round, when Gipsy were leading by four matches to two.

Guy's Hospital Rifle Association.

The last two shoots for the Armitage Cup took place on Wednesday, June 16th and 23rd. The wind on the latter date was exceedingly tricky, with the result that the scores, with the exception of one, were not good.

THIRD SHOOT.		FOURTH SHOOT.	
W. E. Wallis	93	H. Platts	94
G. A. Blake	91	E. O. Yerbury	87
H. L. Attwater... ...	91	H. L. Attwater... ...	84
E. O. Yerbury	90	G. A. Blake	82
H. Platts	88	W. E. Wallis	81
W. Robinson	85	W. Robinson	69
Total	538	Total	497

The Annual Prize Meeting was held at the same time, the results of which will be announced in the next number of the GAZETTE, also the result of the Armitage.

We have to thank the following gentlemen for their kind donations to the Prize Fund:—L. A. Dunn, Esq., M.S.; M. S. Pembrey, Esq., M.D.; Messrs. Ash & Co.; H. H. G. Grattan; and the Holborn Surgical Instrument Company.

Births.

BRYDONE.—On June 13th and 14th, at 16, South Audley Street, W., to Dr. and Mrs. Brydone, a daughter and son.

MORGAN.—On June 5th, at Groombridge, Sketty, the wife of Dr. Edward Morgan, of a daughter.

Deaths.

GATHERGOOD.—On June 1st, at Aylmer Hall, Tilney, near King's Lynn, Norfolk, Benjamin William Gathergood, M.D., aged 57.

MORGAN.—On June 5th, at Groombridge, Sketty, Mabel Joyce, the infant daughter of Dr. and Mrs. Edward Morgan.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

July.

Sat. 10. 1st XI. v. Beckenham (Home).
1st VI. v. Surbiton "A" (Away).
2nd VI. v. Highgate "A" (Home).

Mon. 12. Clinical Lecture by Mr. Ormond (Ophthalmology), 1.15 p.m.

Tues. 13. **Guy's Operatic Society Concert,** Æolian Hall, 8.45 p.m.

Wed. 14. 1st VI. v. Connaught (Away).
2nd VI. v. St. Bart.'s "A" (Away).

Thu. 15. Messrs. Symonds and Steward's Take-in (Messrs. Perkins and Brookhouse).

Sat. 17. 1st VI. v. Dulwich Farm (Away).
2nd VI. v. St. Thomas's "A" (Away).

Mon. 19. Clinical Lecture by Dr. Hertz (Electrotherapeutics), 1.15 p.m.

Wed. 21. 1st VI. v. Boundaries (Home).

Thu. 22. Messrs. Lane and Fagge's Take-in (Messrs. Chapple and Mullins).

SOME of our readers may perhaps welcome an opportunity of securing some odd copies of the famous *Guyoscopes*, which are nowadays so much sought after, and so difficult to obtain. We have been requested to find a home for Part 9 (Christmas number), and No. 10 of Volume I. (1897), Nos. 11, 14, 15, 17, and 18 (Xmas No.) of Vol. II. (1898), and Nos. 1–6 (complete) of the new series (1906). Will intending buyers make an offer by letter to—*Guyoscope*, G. H. Gazette Office?

Passim.

ONE of the chief features of last Christmas at the hospital was undoubtedly the series of concerts given by the Gilbert & Sullivan party. On all sides one heard their praises sung, and personally we could not hear some of the delightful quartettes, choruses, etc., too often. Next Tuesday's concert at the Æolian Hall provides a welcome opportunity of renewing acquaintance with them. The Policemen's Chorus, from *The Pirates*; the Madrigal and "The Cheap and Chippy Chopper," from *The Mikado*; The Captain's song, from *H.M.S. Pinafore*, and many other selections from the famous series of operas, will be sung by a talented band of vocalists, under the capable direction of Mr. L. C. D. Irvine. These items in themselves would make a concert of very great interest, but when it is added that such amous artistes as Miss Rosina Filippi, Miss Louie Pounds, Mr. Lewis Waller, Mr. Henry Ainley, Mr. Courtice Pounds, and Mr. Rutland Barrington have promised to assist, it will be obvious that an exceptionally attractive pro-

gramme may be expected. A large number of tickets have already been taken, but we understand that there are still some of the cheaper seats available, and we would most strongly recommend our readers to secure them without delay.

As we go to press we have received a letter from the Hon. Secretary (which will be found in our correspondence column), and are delighted to hear that the financial success of the concert is already assured. As we have already indicated, its *artistic* success was never in doubt. We hope that Mr. Irvine's appeal to the younger members of the hospital will meet with a loyal response.

THE Park was looking very nearly its fairest on Thursday last when the Annual Garden Party was held. Given a fine day, a large attendance, and a good band, the success of this function is assured. Old Guy's men and nurses meet friends of their time and talk of old days, good friends of the hospital see something of the results of their charity, present Guy's men and nurses explore regions of the hospital of whose existence on ordinary days they are scarcely aware. Academic and feminine costumes, vying with one another in brilliance, lend a kaleidoscopic gaiety to the scene, the rattle of talk and tea-cups makes it homely, the latest valse tunes played by the band cast a mundane glamour over the proceedings. The serious and official business of the day—the Distribution of Prizes — takes place in the crowded Physiological Theatre, but the many who cannot get in there have much else to occupy them—new parts of the hospital to visit and old friends to recognize. When all the visitors are gone the place resumes its ordinary aspect once more, though for a time the signboards remain like a mockery to direct us to places we know so well. The great place settles down to another half-year's work until the next great festival of Christmas.

THE Dean's Report chronicles a year of steady progress. The feature of it which attracted most attention, perhaps, was the section dealing with the low entries of students at the medical schools just now, and the corresponding favourable prospects in the profession. "The income that can be made by the recently qualified man is certainly much higher than it was a few years ago," Dr. Eason said, and although a gentleman in the audience very audibly called a "query" to this, we believe there is much truth in it. The comparatively small number of students entering the profession during the last few years must have its effect in lessening the overcrowding which was manifest a few years ago.

THE utmost regret was felt throughout the Hospital at the close of last week when it became known that the Matron had tendered her resignation to the Court of Governors, and that the same had been perforce accepted. It is difficult, at first, to realise all that this means to the Hospital. An excellent administrator, combining great courtesy and tact with due firmness, the Matron has proved herself ideally fitted for the responsible post she has held. Many sisters and nurses, both past and present, have much reason to be thankful for her consideration and thoughtfulness, and the high position held by Guy's nurses throughout the world is due, not a little, to the training and help derived from the teaching and example of Miss Swift. With the Staff and Residents, also, she has been universally popular.

THE resolution of the Court embodying its high appreciation of the great services rendered by Miss Swift to the Hospital and the Trained Nurses' Institution, is to be emblazoned, and

after being signed by the Treasurer and Clerk of the Hospital, is to be presented to her "With the best wishes of the Governors for her future comfort and welfare." We understand that the resignation will take effect in the autumn, and it is with much satisfaction we note that no question of ill-health has prompted it. The Matron has passed the best years of her useful life in the service of the Hospital, and now naturally desires a time of less activity and strain. She passes into her retirement with the affectionate regard and appreciation of a very large number of us who are connected with Guy's, and with the sincere respect of all with whom she has been brought in contact. We hope, in a future number, to publish some account of her career, with a portrait.

ONE of the ways in which the Matron's administrative ability has shown itself is in her economical and efficient organisation of the nursing staff. In a recent issue of *The Hospital*, figures are quoted from *Burdett's Hospitals and Charities for* 1909, which show that the average cost to the Hospital of nurses per head is less at Guy's than at any other London hospital. Guy's is also among the "one or two exceptionally well administered hospitals where the accounts for the Nurses' Home are available in separate form, and distinct from the general accounts."

AT the newly-instituted Territorial Forces Athletic Championships, which were held in the Stadium, at Shepherd's Bush, on Saturday, June 26th, the following successes were scored by Guy's men:—Long Jump Championship, Pte. B. Sampson, 1st; 100 Yards Championship, Pte. H. W. Evans, 2nd; High Jump Championship, Sergt. R. G. Oram, 3rd. The above men are all members of the "Artists'" Corps, now designated the 28th Battalion of the London Regiment. The well-known "Artists'" Corps, which has had a long and intimate connection with Guy's, has received a considerable influx of recruits from the Hospital during the past year. We are informed, nevertheless, that there is still room for a certain number of men of the right sort.

AT a meeting of the Physiological Society held at Oxford on June 26th, Professor F. Gotch, who presided on the occasion, after speaking in warm terms of Dr. Pavy's life-work, presented to him, in commemoration of the eightieth anniversary of his birth, a silver bowl bearing the following inscription: "Frederick William Pavy, M.D., F.R.S., May 29th, 1909. From the Physiological Society, in token of affection and admiration."

IN the recent Council election of the Royal College of Surgeons, we are pleased to say Mr. Clement Lucas, who was the only candidate from Guy's, retained his seat. The great interest taken in the election was shown by the fact that the poll was the largest on record—971 Fellows recorded their votes. The following was the result of the polling:—Sir Watson Cheyne, 420; Mr. William Harrison Cripps, 385; Mr. Richard Clement Lucas, 356; Mr. John Bland-Sutton, 333; Mr. Walter Hylton Jessop, 328; Mr. Charles Alfred Ballance, 261; Mr. Arthur Mayo Robson, 208. Sir Watson Cheyne and Mr. Lucas were therefore re-elected, and Mr. Cripps elected, to the Council. Our readers will join with us in extending hearty congratulations to Mr. Lucas on the successful issue of his candidature. As we go to press, the further honour which we anticipated for Mr. Lucas is announced. He has been elected one of the Vice-Presidents of the College. Our readers will be pleased to hear that a Guy's man is again appointed to this high office.

AT a special general meeting of the Rugby Football Club held recently, Mr. Stringer's

motion for an alteration in the rules was discussed and, after an amendment, was carried practically unanimously. It was decided that, in future, the Captain and Secretary for the coming season shall be *nominated* at a meeting of old Blues to be held a few days before the ordinary annual meeting of the club. In this way the advantages which we enumerated in our last issue are secured, and the rights of the general body of members are at the same time safeguarded. Due notice will be given in the Gazette and elsewhere of these meetings of old Blues. We wish the plan every success, which it deserves on the grounds of common sense and convenience alike.

Anti-vivisection is, just now, very much in the air once more. A procession from the Embankment to Hyde Park of "Friends of Animals" is to be held to-day, in connection with the International Anti-vivisection Congress, which has been meeting during the week. Several of the banners which were to have been carried in this procession have been prohibited by the police, on the ground that their display in the streets might provoke "the rowdy section of the opposition" to riot. Whether there was any danger of this or not, most decent-minded people will be profoundly thankful that the banners have been banned, since, from the published descriptions, they are apparently of that vulgar description so dear to the morbid and obsessed mind of the anti-vivisector. One is stated to be a vivid allegory of "Truth overcoming Error"—a dog on the operating table being rescued from the devil (presumably a physiologist) by the Angel of Truth. With such mawkish sentimentality and sensationalism (for this particular banner is but a type of all their "art" and "literature"), the anti-vivisector plays on the minds of those who indulge a morbid passion for the gruesome; meanwhile, he adds not one jot or one tittle to our knowledge of the treatment of disease or the relief of human suffering. He has evolved into an extraordinary creature—unique in the animal kingdom—who cares less for his own species than for any of the others.

While the Report of the Royal Commission on Vivisection is awaited with interest, the published evidence has already given rise to much discussion. Dr. Hadwen, at the recent annual meeting of the British Union for the Abolition of Vivisection, after speaking of Professor Thane's evidence, went on to say—"But it was Professor Pembrey who 'took the cake.' He says: 'I think that painful experiments are necessary. I mean painful experiments, as against experiments under anæsthetics. A common-sense view should be taken of this question, and pain must be admitted. I admit that I have done painful experiments, and I am not ashamed of it. They are absolutely necessary. Pain was part of the scheme of Nature, and if they gave enough they relieved the animal by producing syncope." . . . These are the men to whom we are asked to give *carte blanche* to carry on their experiments upon animals behind closed doors; these are the men who are trying to persuade the public that the animals experimented upon do not suffer. . . ." Really Dr. Hadwen, who complained that there was not an expert anti-vivisector on the Commission, "takes the cake!" And he will no doubt be able to make the ignorant public swallow it.

On the occasion of the recent tour of T.R.H. the Prince and Princess of Wales through the Duchy of Cornwall, a stay was made at Midsomer Norton, in Somerset, in order to present medals and certificates of the St. John Ambulance to those who were prominent in rescuing and relieving the entombed miners in the colliery explosion at Norton Hill on April

9th, 1908. Among these was an old Guy's man, Dr. G. S. Pollard, of Midsomer Norton. We learn from the *Bath Herald* that the Prince, after referring to the heroism of the miners in rescuing their comrades, said:—"I have also learnt that there were others who performed acts of great self-sacrifice and devotion, and that you all recognise with gratitude the untiring and invaluable professional assistance rendered to your entombed comrades by Dr. Pollard." Dr. Pollard was presented to the Prince as Chairman of the Relief Fund Committee, and received a certificate for conspicuous bravery in the rescue work in connection with the colliery explosion.

The Dental Travelling Scholarship of £100 has been awarded by the Treasurer, upon the recommendation of the Dental Council, to Mr. F. N. Doubleday.

THE International Congress of Nurses and a Nursing Exhibition convened by the National Council of Trained Nurses of Great Britain and Ireland, is to be held at the Caxton Hall, Westminster, from the 20th to the 23rd of this month. Many important subjects are down for discussion, among which we notice "The Nurse as a Citizen," "The Nurse as Patriot," and "The Nurse in Private Practice," and of course the evergreen subject of Nurses' Registration. Full particulars of the Congress arrangements will be found from week to week in the *British Journal of Nursing*.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Annual Prize Day and Garden Party.

THIS function took place on Thursday last, July 8th. Changeable weather in the morning was followed by a fine afternoon, and the desolate spectacle of a garden party in the rain was happily not seen. Owing to the Duke of Devonshire being unavoidably detained at a Committee of the House of Lords, the Distribution of Prizes did not take place until 4.30 p.m. In the meantime the various parts of the Hospital, including the new Out-patient buildings, the Nurses' Home, College, and Medical School, were open to visitors. Refreshments were served in the Colonnade quadrangles, and on the terrace in the Park, and the Royal Meister Orchestra, conducted by M. Eugène Maney, played an attractive programme of music.

At 4.15 the Governors and their guests, and the Staff, assembled at the Counting House to meet the Duke of Devonshire, and the procession was formed, and, headed by the mace-bearer, made its way to the Physiological Theatre, which was filled to overflowing for the Distribution of Prizes.

Mr. Cosmo Bonsor, the Treasurer of the Hospital, occupied the chair, and called on the Dean to read his Annual Report which was as follows:—

DEAN'S REPORT, 1908–1909.

The work of the School throughout the past year has been very satisfactory. The entry of students from October, 1907, to October, 1908, was approximately the same as that of the previous twelve months, and again gives proof that Guy's Hospital is maintaining its high position among the other medical schools.

The number of students who qualified was also about equal to that of the previous year. At the University of Cambridge one student took the degree of Master in Surgery, 4 took the degree of Doctor of Medicine, and 11 qualified as Bachelors of Medicine and Surgery.

At the University of London 8 students obtained the degree of Doctor of Medicine, and 26 qualified as Bachelors of Medicine and Surgery. At the University of Durham one student obtained the degree of Master in Surgery. In addition to these University degrees, 45 students gained the Conjoint Diploma granted by the Royal Colleges of Physicians and Surgeons, and 5 received the Diploma of Fellow of the Royal College of Surgeons of England. In the Dental School the entry shows an increase upon that of the preceding year, and 26 students were granted the Licence in Dental Surgery of the Royal College of Surgeons of England. Three Guy's men have entered the Royal Army Medical Corps, three the Naval Medical Service, and two the Indian Medical Service.

The policy of the Dental School in taking pupils for the period of Mechanical Apprenticeship has been exceptionally successful, and though the Laboratory has only been open for this purpose two years, no less than 40 pupils are now being trained in that department.

The School has to congratulate Mr. H. F. Vandermin in qualifying for the University Gold Medal in the examination for the degree of M.D. at the University of London; Mr. H. O. Brookhouse for obtaining the University Gold Medal and Honours in Medicine, Surgery, Midwifery and Diseases of Women at the examination for the Bachelor of Medicine and Bachelor of Surgery at the University of London; and Messrs. H. I. Janmahomed, V. Townrow, and A. H. G. Burton in obtaining honours in various subjects at the same examination.

Changes on the Hospital and School Staff have not been numerous.

It is with the deepest regret that the School has to record the death of Sir Thomas Stevenson, whose services here during a period of 39 years were so great, and whose exceptional position in the medico-legal world conferred such a distinction upon Guy's that it is felt that the loss caused by his death cannot readily be repaired.

Following upon the vacancy in the Lectureship on Forensic Medicine, caused by Sir Thomas Stevenson's death, the School entered into negotiations with some of the other Metropolitan Medical Schools with a view to the formation of a joint Lectureship in this important subject. At the present moment, however, it has been found impossible to achieve this end, as, though it was the opinion of the representatives of the Schools concerned that such a course of action was most desirable, it was felt that the policy ultimately to be adopted was intimately connected with the appointment of a University Lecturer in Forensic Medicine, and the re-organization of medico-legal work in connection with public post-mortem examinations in London.

Having regard, therefore, to the appointment of a Departmental Committee of the Home Office, at the present time reviewing the law relating to Coroners' Inquests, the Treasurer, acting upon the advice of the Staff, has appointed Dr. H. S. French and Mr. J. H. Ryffel temporary joint Lecturers in this subject, in order that the School may be free to take a considered course of action after the Home Office Committee have reported.

It is with great regret, also, that the Staff have to record the death of Dr. Horrocks, Consulting Obstetric Physician, who died on the 28th February, 1909, shortly after having retired from the Active Staff on account of illness. Dr. Horrocks had been Obstetric Physician to the Hospital since 1883, and joint Lecturer on Midwifery in the Medical School since 1902. Mr. G. Bellingham Smith has been promoted to the full Obstetric Staff to fill this vacancy; and, acting upon the recommendation of the Medical Staff, the Governors have decided not to make any fresh appointment to the post of Assistant Obstetric Physician.

The School has also to record, with great regret, the death of Sir Frederick Wills, a Governor, who had always taken a most active interest in the welfare and prosperity of the Medical School, and had in his lifetime equipped the handsome Library, named after him, with oak bookcases and furniture, at a cost of £6,000.

During the year Mr. Fagge has resigned the post of Aural Surgeon, and Mr. Philip Turner is now in charge of the Department.

Mr. E. L. Martyn Lobb has been appointed Resident Surgical Officer in succession to Mr. S. W. Daw; Mr. K. H. Digby has been appointed Surgical Registrar in place of Mr. Bankart; and Mr. E. L. Kennaway has been appointed Demonstrator of Physiology to fill the vacancy caused by the resignation of Mr. P. P. Laidlaw, who has become Assistant Director in the Wellcome Research Laboratories.

In connection with the Physiological Department, the School has to congratulate Dr. David Forsyth, now Assistant Physician to Charing Cross Hospital, and formerly Demonstrator of Physiology in this Medical School, on having obtained the degree of Doctor of Science at the University of London for Research, a great part of which was carried on in these Physiological Laboratories.

The School has also to announce with regret the resignation by Dr. Stevens of his post of Demonstrator of Biology, which he has held for many years with great success and to the satisfaction of his colleagues on the School Staff. Mr. William Youngman has been appointed Demonstrator of Biology to fill the vacancy thus created.

The School has during the year completely re-organised and practically re-built the accommodation for the teaching of Operative Surgery, and this year proposes to re-lay the floor of the Dissecting Room with a view to the greater comfort and convenience of the students.

The expansion of the Dental School has been so rapid, more particularly since the complete training of Mechanical Pupils has been undertaken, that the Dental School is desirous of acquiring the existing Chemical and Physical Laboratories in the Petersham Block in order that sufficient accommodation may be found satisfactorily to carry on the education of their students. This will necessitate the erection above the Medical School buildings of fresh Laboratories for the teaching of Chemistry and Physics, and plans for this work are under the consideration of a Committee of the School.

The great increase in the work of the Dental Department, more especially in the Laboratory, has also necessitated a larger Mechanical Staff, and the Treasurer has further approved of the recommendation of the Dental Council that two Staff Demonstrators should be appointed for daily supervision of the pupils' work.

In view of the progressive importance of the Pathological Department, and of the great increase in the amount of bacteriological work carried on for the Hospital for purposes of diagnosis and treatment, plans are now under consideration for the erection of further buildings to increase the accommodation in both these departments.

It is with the greatest pleasure that the School has to record the practical completion of the re-organization and re-building of the Out-Patient Department, which to-day is open for the inspection of visitors. The need of such extension has long been keenly felt by the

members of the Hospital Staff, and it is with cordial recognition of what has been effected by the generosity of an anonymous donor and of King Edward's Hospital Fund for London that they find themselves in occupation of a department adequate to their needs and worthy of the rest of this great Hospital.

The past year has been remarkable for the great development of the Territorial Army, and the University of London has taken the most active part in forming a University Contingent of the Officers' Training Corps. It will occasion satisfaction to many here present to know that the number of students who have joined this Corps from Guy's Hospital is larger than that from any other medical school in the Metropolis.

The School has also to welcome the appointment of a Commission to inquire into University Education in London, and it is hoped that the labours of this Commission will result in such a revision of the existing Statutes of the University of London as may at length obtain for medical students in the Metropolis those benefits which it was hoped would follow upon the reconstitution of 1900.

Several munificent donations in the cause of medical education and research have been made during the past year.

The Hon. Mrs. Ronald Greville has endowed the Greville Research Studentship for original investigation in connection with the subject of Cancer to the value of £200 per annum, and Mr. R. A. Chisholm has been appointed first Greville Student under the terms regulating this endowment.

More recently the School has further to record the foundation of the Douglas Research Studentship for original investigation in connection with Actinotherapeutics, or the curative action of radium and X-rays, with special reference to cancer. Dr. James Douglas, of Quebec and New York, who has founded this Studentship, has given the sum of £300 for a year for research in this particular department of Medicine, and has also provided the assistance of a skilled Physicist, who will be endowed by him to assist the scientific investigations of the Douglas Student.

Applications are at the present time invited for this Studentship, and it is hoped that Dr. Douglas's munificence will produce beneficial results worthy of his generosity and public spirit.

In connection with medical education, it may be of interest to note that from the returns of the General Medical Council the number of students entering the profession is still much below that of a period of from ten to fifteen years ago. The small number of students entering the medical profession is probably due in some degree to the overcrowding of the profession which resulted from the large entries into the medical schools of London at that time, and also to the increase in the cost of the medical curriculum; but it is interesting to note that this period of depression in the medical profession seems passing away, and there is no doubt that at the present time the demand for qualified men far exceeds the supply.

Applications are being daily received from Provincial Hospitals unable to get the Medical Officers they require, and the income that can be made by the recently qualified man is certainly much higher than it was a few years ago. Under the circumstances, therefore, it seems desirable to point out to the public that the profession of Medicine holds out at the present time better prospects than it has for some years past, and that an income can be made in its ranks which compares favourably with that to be made in many other professional careers.

Finally, the School has to record with the greatest satisfaction that its financial condition remains stable, and that the receipts from Students' fees maintained the high level which they reached last year. At the same time it must be emphasized once more that the Medical School receives no subvention, either directly or indirectly, from the Hospital funds, and that the cost of the Medical School has nearly doubled in the last fifteen years, while the fees charged to Students remain practically unaltered.

It has been mentioned in previous years that it is inexpedient to increase Students' fees at the present time of general financial depression, since an increase in the fees would make the cost of medical education too high in proportion to the income to be obtained in the ordinary practice of the profession; and, moreover, that the competition of the Provincial Schools, which are generally well supported by local patriotism, would probably render such a policy nugatory. Hence the School has once more to impress upon the public the claim of medical education to be adequately endowed, as through endowment only will it be possible to pay the teachers in Medical Schools any remuneration at all proportionate to their labours.

As will be seen from the foregoing report, Guy's Hospital Medical School has to acknowledge with great gratitude considerable support in this direction during the past year; but this is only a beginning, and this report must end, as it has ended for many previous years, with an appeal for further donations towards the endowment of medical education and research to ensure the maintenance of the Medical School of Guy's Hospital at a level worthy of its great traditions.

At the conclusion of the Report the Chairman invited the Duke of Devonshire to distribute the certificates to the following successful students:—

PRIZE LIST.

OPEN SCHOLARSHIP IN ARTS.—Arthur Joseph Eagleton Smith, Rugby School, £100. Henry William Evans, Bedford Modern School, £50.

OPEN SCHOLARSHIPS IN SCIENCE.—John Frederick Gwyther Richards, Victoria College, New Zealand, and Preliminary Science Class, Guy's Hospital, £150. William Leslie Webb, Preliminary Science Class, Guy's Hospital, £60. George Sefton Miller, Preliminary Science Class, Guy's Hospital, Certificate.

SCHOLARSHIP FOR UNIVERSITY STUDENTS.—Nathan Mutch, B.A., Emmanuel College, Cambridge, £50. Harold Wordsworth Barber, B.A., Clare College, Cambridge, Certificate.

OPEN SCHOLARSHIPS IN DENTAL MECHANICS. — October, 1908, William Hector Wotton, £20. May, 1909, Guy William Enston Holloway, £20.

JUNIOR PROFICIENCY PRIZES.—William Edward Tanner, £20. William Stanley George, £15.

THE BEANEY PRIZE FOR PATHOLOGY (1908).—Edward Leslie Martyn Lobb, £34.

THE MICHAEL HARRIS PRIZE FOR ANATOMY.—William Edward Tanner, £10. William Stanley George, Certificate.

THE HILTON PRIZE FOR DISSECTIONS (1908)—Geoffrey Marshall, £5.

THE WOOLDRIDGE MEMORIAL PRIZE FOR PHYSIOLOGY. —William Stanley George, £10. William Edward Tanner, Certificate.

DENTAL PRIZES (First Year's Students).—Edward Palmer Hudson, £10. Wilfrid Stephen Ollis, William Hector Wotton, equal Certificates.

PRACTICAL DENTISTRY PRIZE. —Hubert Ernest Shepherd, £10. Clement John Henry, Certificate.

NEWLAND-PEDLEY GOLD MEDAL FOR PRACTICAL DENTISTRY.—George Evan Henry Holt Phillips. Hubert Ernest Shepherd, Certificate.

GOLDING-BIRD GOLD MEDAL AND SCHOLARSHIP IN BACTERIOLOGY.—William Henry Catto, £20. Habibmia Ismail Janmahomed, Certificate.

TREASURER'S GOLD MEDAL FOR CLINICAL MEDICINE.— Habibmia Ismail Janmahomed.

HIS GRACE THE DUKE OF DEVONSHIRE, then delivered a short address, prefaced by an apology for asking that the ceremony might be postponed somewhat, owing to his duties on a House of Lords' Committee requiring his attendance during a good portion of the afternoon. He humorously said he did not know what penalties the British Constitution exacted from those who left a committee before it had finished its sitting. He said it gave him very great pleasure to be present to take part in a function of this character. He had never previously availed himself of the opportunity of being at the ceremony. But, of course, like everybody else, he had heard of, and knew the fame of this great institution, and he esteemed it a very great privilege to be allowed to take part in the function. He had nothing of an original character to say, and of all who were present, he had the least claim to speak; he had never been a student, nor had he allowed any member of the profession to operate upon him. (Laughter.) But he knew the great work which was being done, not only by Guy's Hospital, but also by all the kindred institutions throughout London and the kingdom; and he felt that, in helping forward the cause, by however little, they were not only doing it for those who were in worse circumstances, and for whose sufferings the profession were doing an immense amount of research work, to find out for other generations still greater improvements for the future. It was a commonplace observation to say that the range of knowledge now open was practically inexhaustible; one thing led to another, and it was only by steadily availing themselves of the knowledge they possessed, following it up, and thereby making new discoveries, that many of the difficulties which were perhaps unknown to our forefathers, could be dealt with. In that great work Guy's Medical School had not only taken a part, but a very prominent part indeed; and there was a very great burden put upon the public to see that great institutions of this character were able to carry on their work free from financial troubles and difficulties which must inevitably upset a great institution of that character. He did not know what would happen if the hospitals of this country were free from debt, but he thought it would be a great misfortune to many in that they could not appeal for practical help and sympathy, which was sometimes received in very liberal forms by those who were prepared to carry on the work which their predecessors did in the foundation of that place. But the report showed that there was still great necessity and great need, and, as had been pointed out, what was wanted was further provision, especially by way of endowment, for medical work and research, and he hoped there still existed in the minds of the British race a determination to see that that great work should be carried on unimpaired and in full efficiency. (Applause.) He did not propose to digress into matters of a technical nature, but he had been glad to learn that the School devoted great attention to dental work. He had often been seriously alarmed by what he had seen in many parts of the country. At the time when he had the privilege of sitting in the House of Commons, he used to go through his old constituency in Derbyshire, when the appearance of the children in the matter of their teeth were perfectly appalling. On one occasion he went to a house where there were four or five generations, and there were said to be only seven teeth between them. (Laughter.) Whether that was strictly true or not he could not say, but he gathered from his own observation that it might well be abundantly true. He happened to mention the matter, in conversation on the Territorial Army, to a General who took an active part in the country's military affairs, and who had made a special study of physique in the Army. That officer said that when he was in South Africa, and went into the hospitals there, he was almost invariably told that there were many men there who were in hospital through causes which were directly or indirectly due to the feeble condition of their teeth. He (His Grace) admitted there was great cause for alarm, particularly in these days when there was so much talk about physique. His hearers knew better than he did that that was a branch of the subject deserving of greater attention than it had ever received before. He hoped those before him would, by their studies, not only do something to benefit individuals, but something to benefit humanity as a whole, and that there would be no difficulty in obtaining any requisite sums of money for placing the schools in a still better position than they were in now, and for the prosecution of the work they had undertaken.

It now only remained for him to perform the pleasant duty of offering his most sincere congratulations to the prize winners, and he would specially include in those congratulations the name of Mr. Habibmia Ismail

Janmahomed, the Treasurer's Gold Medallist for Clinical Medicine, and he hoped he might include the congratulations of his audience. He believed he was right in saying that that gentleman was the first of his Majesty's subjects from India who had gained that very high distinction—(applause)—and he hoped that that success was the forerunner of many other successes in the future.

His Grace concluded by thanking very sincerely those who had kindly asked him to come, and expressed the hope and the belief that Guy's would continue to be a flourishing school for generations to come, and that there would be as many reasons for pride in the old school as at any previous time. (Applause.)

Dr. HALE WHITE said it was his pleasing privilege to move a hearty vote of thanks to the Duke of Devonshire for having presided over the ceremony that day. He thought but few people were aware that there were two institutions in those grounds—a large hospital with hundreds of beds, and the ceremony that day was in no way connected with that institution, but with the second institution—a large, venerable, and famous medical school. That medical school had been going for nearly two centuries, and he thought it had a great claim upon everyone's attention. Probably the good that it did was greater even than that done by the hospital. In the first place, it had trained tens of thousands of students to think scientifically and accurately about their profession, and to learn those sciences which were the helpmeets of medicine—anatomy, physiology and chemistry, physics, and so forth—and he hoped it would train many thousands more. And not only did the medical school act as a great reservoir from which might be drawn surgeons and physicians, but in the various departments it trained many distinguished men. For instance, were it not for the work of their senior consulting physician, Sir Samuel Wilks, pathology would have worn a very different aspect from that which it presented to-day. Again, their next consulting physician, Dr. Pavy, who was eighty—Dr. Wilks being eighty-four—was hardly less famous as a physiologist than as a physician. It was only the other day that the Physiological Society at Oxford conferred upon him an unique honour by presenting to him a silver bowl to commemorate his birthday. There was a life, fifty years of which had been spent in the prosecution of pure research. One could name others also. For instance, the present Professor of Physiology in the University of London was trained at Guy's, the present Professor of Chemistry at Oxford was a Guy's man; the gentleman who looked after the department of physiological chemistry at Cambridge was trained there also, namely, Dr. Hopkins. And another Guy's man, Dr. Leathes, had been selected to be Professor of Pathology at Toronto. Guy's Medical School, therefore, not only trained people to be distinguished physicians and surgeons, but trained scientists, who were carrying out research and investigation into disease. Such places helped to keep disease under and in check, as anyone familiar with scientific periodicals would know. On that and many grounds he claimed that Guy's was a great scientific school, and it was worthy of note, as the Dean had pointed out, that all that work had been done, until recently, without any endowment at all. It was true that during the last few years a few far-minded generous men had come forward and helped, such as Mr. Gordon—(applause)—who gave the Lectureship in Pathology and Gordon Museum. (Applause.) Sir William Cameron Gull also gave the Gull Studentship—(applause)—and all welcomed there that day Dr. Douglas, who, as had been said, had made a generous donation towards research. All that could be hoped was that such donations would stimulate others to help still further. And he did not think the School Authorities could have found a more suitable chairman, because the mantle of learning and science was always wrapped very largely round his Grace's family. One of the original Fellows of the Royal Society was Henry Cavendish, who discovered the composition of water and of nitric acid; and without that knowledge chemistry would not exist. But he was glad that there was one of Henry Cavendish's traits which the present Duke did not possess. Cavendish was described as a most taciturn man, and if the present Chairman had been so, he would not have delivered such an interesting speech. Cavendish so little liked speaking that he would not order his dinner by word of mouth, but wrote upon paper what his wishes were. Then, to come to more recent times, everyone knew how interested in, and associated with learning was the seventh Duke of Devonshire; he was Second Wrangler, he was Chancellor of the University of Cambridge, Chancellor of the University of London, and Chancellor of the University of Victoria, and he also founded the Cavendish Laboratories at Cambridge. He thought he had shown how suitable a Chairman the School had been fortunate enough to secure, and he felt sure those present would pass a hearty vote of thanks to him for what he had done. (Applause.)

Dr. NEWTON PITT, in seconding the vote, said it required very few words from him. It had often been said that it was the busy man who had most time to spare, and the cordial thanks of the company were due to His Grace for leaving his duties so hurriedly to preside at the function, and delivering the most interesting address which he did.

The vote was carried by acclamation.

HIS GRACE, in returning thanks for the vote, said he wished someone would discover a means of making brains hereditary as well. (Laughter.) He could supplement the story about the instructions to his predecessor's housekeeper. On one occasion a friend came and stayed with him, and the housekeeper reminded him that he had only ordered a leg of mutton for his dinner; what was she to do? The reply was: "Order two." (Laughter.) He was very grateful for the kind vote of thanks.

The band of the Royal Meister Orchestra rendered the following programme :—

March, "Sounds of Peace" (Von Blon); Valse, "Mondaine" (Berger); Selection, "Our Miss Gibbs" (Caryll);

Egyptian Romance, "Amina" (Lincke); Spanish Dances, (Mozkowski); Valse "L'Etoile" (Colin), Selection, "King of Cadonia" (Jones); Romance, "Le Cygne" (Saint-Saëns); Siamese Patrol (Lincke): Serenade (Pierne); Valse, "Wiener Bonbons" (Strauss); Selection, "La Bohème" (Puccini); Chant Sans Paroles (Tschaikowsky); March, "Vienna up to Date" (Komzak).

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Royal College of Surgeons Election.

SIR,—May I trespass upon your courtesy to enable me, through your columns, to return my warmest thanks to all those Fellows who have so generously accorded me their support in the recent election into the Council of the Royal College of Surgeons?

That the poll should have been the largest on record indicates the number of influences at work, and the keenness of the competition among the seven candidates for the three seats declared to be vacant. Two of these were retained by their former occupants, whilst the third was captured by a candidate who was unseated last year; but what makes the election especially remarkable is that the candidate, who headed the poll by a large majority at his last election, was on this occasion transferred to the very bottom of the list.

Among such sudden reversals of opinion I esteem myself fortunate in having retained the confidence of the Fellows. Had I been unsuccessful, I should still have preserved the pleasure of many cordial greetings, and of letters expressing affectionate regard and enthusiastic desire for my success, from every town of any size in the United Kingdom where a Guy's man resides. Some of these were from old friends who were fellow-students, then came a series reminding me of my anatomical teaching, and, finally, from a large army of old ward-clerks, dressers, house-surgeons and past students, to all of whom I can only inadequately express my gratitude for their kind wishes and loyal support.

Nor must I forget, sir, to thank you, also, for the very valuable aid you rendered me by advocating my claims in your columns.—Yours faithfully,

R. CLEMENT LUCAS.

Guy's Operatic Society.

DEAR SIR,—May I, through the medium of your columns, appeal to the members, present and past, of Guy's Hospital.

Your readers must by now know that a new Society has sprung up in their midst. The Guy's Operatic Society has, for the past few weeks, been struggling into existence, and next Tuesday it is to show the first signs of its active life by giving in a slightly more complete form those Gilbert and Sullivan items which were given last Christmas in the wards.

Through the loyalty of the richer friends of the Hospital, almost all the expensive seats have been taken, and the financial success of the initial undertaking is already assured; but the hall is not yet full, and I appeal, Sir, to the younger men to come and occupy the cheaper seats in the house, that the Society may thus be well supported numerically; and, still more important, that those eminent artistes who have so very kindly consented to help, may not find themselves singing and reciting to a hall only half full.—I remain, Sir, Yours sincerely,

L. C. DUNDAS IRVINE, Hon. Sec.

Residents' Going-off Dinner.

THIS dinner was held on Wednesday, June 30th, when forty-five residents and guests were present. The retiring residents were Messrs. St. J. A. M. Tolhurst (president), H. B. Carlyll (vice-president), A. N. Leeming, E. L. Martyn Lobb (who was unfortunately absent), and C. A. Basker.

After dinner the officers for the ensuing three months were appointed, Mr. W. W. Cook being the new president and Mr. P. S. Price vice-president. The toasts of the evening were "The King," "The President," "The Vice-President," "The Going-off Residents," "The New President and Vice-President," "The Visitors," and "The Coming-on Residents." The speeches were short, with the exception of Mr. Carlyll's, which, indeed, made up for all shortcomings, in the matter of time, in the others. Mr. Daw responded for the visitors, and Mr. Johnson for the new residents.

The musical programme which followed was contributed to by Messrs. P. S. Price, H. W. Doll, F. C. Endean, H. C. Renton, L. C. D. Irvine and M. E. Ball (accompanist). Mr. Renton gave some recitations, and Mr. Endean sang his famous "Village Anthem."

Papers by Guy's Men.

James F. Goodhart, M.D. Lond, LL.D., F.R.C.P.: The Treatment of Uric Acid.—*The Practitioner*, July, 1909.

Captain A. J. Hull, R.A.M.C.: The Operation for Liver Abscess (Illustrated).—*Journal of the Royal Army Medical Corps*, July, 1909.

G. Norman Meachen, M.D., B.S. Lond., M.R.C.P. Lond.: Clinical Demonstration of Selected Skin Cases.—*The Hospital*, 26th June, 1909.

Leonard A. Parry, B.S. Lond., F.R.C.S.: A Case of Acute Mastoiditis, with Lateral Sinus Suppuration, and Cerebellar Abscess as Complications of the Operation for the Removal of Tonsils and Adenoids.—*The Lancet*, 26th June, 1909.

Capt. R. Tilbury Brown, R.A.M.C,: Hints on Camping Arrangements for Sanitary Officers (Illustrated).—*Journal of the Royal Army Medical Corps*, July, 1909.

Cervical Ribs.

CLINICAL LECTURE BY MR. F. J. STEWARD.

GENTLEMEN,—This condition is decidedly rare, and perhaps for this reason might not be thought suitable for a clinical lecture. I have chosen it, however, because, firstly, it forms a very interesting anatomical and clinical study, and therefore is worth considering from the purely scientific point of view; secondly, it has not had much notice in the text-books, and these lectures serve a useful purpose in filling up the gaps in those works; in the third place, the condition, as you will see, occasionally produces very serious symptoms which necessitate surgical interference, and therefore it is well worth your while to be in a position to recognise the cause of these symptoms; and finally, the condition occasionally crops up in examinations.

Anatomical points.—You will remember that the seventh cervical vertebra has a double transverse process, and that between the anterior and posterior portions there is a foramen for the passage of the vertebral artery. The anterior or costal processes morphologically correspond to the ribs in the dorsal region, and by abnormal development of these, accessory or supernumerary cervical ribs are formed. The degree of development varies enormously. In the simplest form there is merely an enlarged costal process. In the next degree there is a rudimentary rib without a body, but consisting of head, neck, and a tuberosity which articulates with the posterior portion of the transverse process. In this condition the rib is usually quite small, not very much bigger, in fact, than the normal transverse process of the seventh cervical vertebra. Then we come to the morphologically fully-developed rib, with head and neck, tuberosity and body, the body projecting beyond the normal transverse process. The body varies a great deal in size and shape. It may be quite small and project straight outwards, giving rise to a hard tumour in the neck. Or it may curve downwards and forwards towards the first dorsal rib, to which it may be attached by means of fibrous tissue, or it may reach round to the anterior part of the first rib, and be joined to it either by bone or cartilage; or, again, it may be entirely separate from the first rib, and join the sternum just as the other ribs do. Thus in the last-named form there is a complete additional costal arch. In like manner, an abnormal development of the sixth cervical costal process may obtain, so that two cervical ribs may be present. Next it is important to remember that cervical ribs are nearly always bilateral, but are seldom developed to the same extent on both sides. It usually happens that the rib on the right side is more highly developed than that on the left.

Only comparatively few cervical ribs produce any symptoms at all. If quite small and freely movable, they are hardly likely to cause serious pressure on any important structure. But if they are fully developed, or anything like fully developed, they tend to give rise to pressure symptoms owing to the fact that they pass beneath, and therefore lift up the structures which normally pass over the first dorsal rib. When there is a seventh cervical rib that passes round parallel to the first dorsal rib, it is liable, therefore, to cause pressure on the subclavian artery, and the brachial plexus. The results of this pressure on the various structures are clinically important.

The clinical results.—These may be divided into several different classes.

1. *The local manifestations.*—If there is at all a well-developed cervical rib it will cause a tumour in the neck, and it is well to remember this possibility when examining swellings in the posterior triangle. They are situated rather higher up than one would expect to find them, and are often tender on pressure, and the patient may complain of pain and tingling in the shoulder or arm and even down to the finger-tips. In one of the cases I shall presently describe there was a tumour in the neck, due to a cervical rib which passed round to the front of the first rib, and this was associated with tingling and pains passing down the arm into the hand.

2. *Pressure effects.*—These vary according to the structures pressed upon, and so must be considered under separate headings.

a. Vascular.—The amount of pressure that a cervical rib causes upon the subclavian artery varies a great deal. It may, apparently, cause no pressure at all, or, on the other hand, it may be found that the pulse on the side which has the larger cervical rib is smaller than on the other, or may even be entirely absent. Again, the blood supply of the limb may be diminished quite apart from the pulse being smaller, and the coldness and numbness of hand and arm, of which the patients often complain, may be possibly explained by the pressure on the artery interfering with the blood supply. Again, the rib, when well developed, lifts up the subclavian artery, and so renders it unduly prominent in the neck. In some cases, indeed, the condition

has been mistaken for an aneurysm, which may be very closely simulated. In a few cases, moreover, the artery has actually been to some extent dilated, so that an aneurysmal condition has been really present. In these cases it is a curious fact that the dilatation of the artery was distal to the scalenus anticus and the rib, and not on the proximal side as one would expect. The explanation of this is difficult; possibly the constant movement of the rib on the artery sets up some degree of arteritis resulting in dilatation. In some cases *thrombosis* of the subclavian artery, spreading down even to the axillary, brachial and radial and ulnar arteries, has been observed. Keen describes ten such cases in which there was well-marked arterial thrombosis. Thrombosis may be associated with serious after-effects, such as a gangrene of the fingers, which was present in seven of the cases collected by Keen. This leads one to wonder whether it is possible that in some cases diagnosed as Raynaud's disease the symptoms may be due to cervical ribs, and I would suggest the advisability of taking a radiogram in every suspected case of Raynaud's disease in order to determine whether a cervical rib is present.

b. Nervous effects.—This sub-group of symptoms is very important, because, as I have already said, the brachial plexus of nerves passes over the cervical rib. Of the nerves of the brachial plexus the eighth cervical and first dorsal nerves are necessarily most liable to be pressed upon, because they pass in an upward direction over the rib. Consequently the nerve symptoms of which patients complain are generally to be attributed to pressure on the lowest trunk of the brachial plexus, formed by the eighth cervical and first dorsal nerves, rather than on the others. The actual nerve symptoms that may be present include both sensory and motor disturbances, because these nerves are mixed nerves. The *sensory* symptoms come under two heads, first, *subjective* symptoms, such as shooting pain, tingling, pins and needles, or numbness affecting neck, shoulder, arm, or hand, and secondly, *objective* symptoms, which include patches of anæsthesia or analgesia, or both, corresponding in position to part or the whole of the area of skin on the inner side of the arm and hand supplied by the eighth cervical and first dorsal nerves. In one case, owing to this anæsthesia, the patient could not tell when her thimble dropped off her finger, and in another a patient burned her arm very considerably without knowing it. Passing from sensory effects to actual *motor* disturbances, we find that the commonest nerve to be paralysed is the first dorsal nerve which supplies the small muscles of the hand, so that wasting of thenar and hypothenar eminences and interossei, and considerable loss of power in the hand, may be present. If long continued there may be secondary contractures producing *main en griffe* with over-extension of the first phalanges and flexion of the other two. This was present in one of the cases described by Keen.

3. *Associated conditions.*—Various conditions have been found to be associated with cervical ribs. In quite a number of cases there is lateral curvature, and this has been shown to be due to asymmetry of the spine caused by the extra rib being associated with increase in depth of the body of the vertebra. In other cases torticollis is present, and may possibly be explained in the same way. Again, syringomyelia and other deformities have been found in conjunction with cervical ribs.

Causes of symptoms.—It is quite well known that in the great majority of cases of cervical rib no symptoms whatever are produced. What, then, are the causes of symptoms? In the first place, the development of symptoms has something to do with the size of the supernumerary rib. If it is small it is very difficult to see how it could produce any marked pressure symptoms. If it is larger, however, it stands to reason that it will be more likely to produce symptoms both by reason of its greater size and also because it tends to lift up the vessels and nerves to a greater extent. Another important point is the degree of fixity of the outward end of the rib. If it is fixed in front to the first rib it is more likely to cause pressure. In addition to this, an injury is likely to start symptoms. As there is an extra rib lifting the vessels above the protecting clavicle, any injury to the side of the neck would be more likely to cause damage to vessels and nerves than in a normal neck. Falls have frequently caused the commencement of symptoms, and in one case the mere act of drawing a cork from a bottle was sufficient to start them. Two cases are on record of soldiers with cervical ribs having developed symptoms owing to the pressure caused by the rifle or the straps of the knapsack. In many cases the symptoms have developed comparatively late in life. Although their occurrence is most common about the age of twenty, they have often developed suddenly in older people, and in one case a woman of seventy, after a slight

injury, had serious nerve symptoms which it was found were due to a cervical rib. Possibly this late development may be explained by the fact that, being abnormal structures, ossification also is normal and may even go on until quite late in life. Moreover, the damage to the vessels may be very gradual, and thus symptoms may not be produced until after a considerable time.

I will now describe to you two cases of cervical rib, which illustrate many of the points I have mentioned :—

CASE 1.—This was a young lady, aged 19, who was sent up to me by Dr. Adeney from Tunbridge Wells, in July of last year. Her right hand had been gradually getting weaker, so that she was unable to use it properly, could scarcely write, and was quite deprived of all power of grip. For four years she had had considerable pain in the shoulder and down the arm, and occasionally in the hand as well. The hand also always felt colder than the other. In the posterior triangle of the neck, in the exact position of a cervical rib, there was a lump, which on pressure sent a tingling sensation down the arm to the little finger. On comparing the pulses on the two sides, the one on the right was found to be slightly smaller than that on the left. She had diminished sensation over a considerable area of the inner side of the forearm—*i.e.*, she was slower at responding to touch—and over a smaller area there was complete analgesia—*i.e.*, loss of sensation of pain—though not complete anæsthesia, for she could just feel a touch. On examining her hand it was found that the thenar eminence and the interossei were markedly wasted. A skiagram showed a cervical rib on both sides, but the one on the right was much more developed than the one on the left. To relieve these symptoms I performed the following operation: I made an incision about three inches long along the anterior border of the trapezius, and then by careful dissection found the posterior extremity of the rib. It was now necessary to proceed very carefully, dissecting away from the rib in a forward direction the whole of the brachial plexus and the subclavian artery. These were partly lifted and partly pushed forward. Then it was found that the attachment of the rib to the first dorsal rib was by a band of fibrous tissue only. This was snipped through in front with scissors, and the bone divided behind with bone forceps, and the rib removed. The wound healed satisfactorily, and when I saw her last September, two months after the operation, she had lost all pain, there was considerable increase of power in the hand, and the disturbance of sensation was almost gone. In a letter received the other day, written in quite a good hand, she says, "My hand is ever so much better, but the test will be when I want to play tennis in the summer; it does not feel quite like gripping a tennis racquet. It is when the days are cold that it is rather feeble," she adds. It is clear, therefore, that the operation has done a good deal of good.

CASE 2.—The next case is that of a woman of fifty, who came up on April 30th last. The cervical ribs of this patient were discovered in a curious way. She developed a cough associated with irritation on the left side of the throat. The doctor who examined her found no signs in the chest, but a well-marked lump on the left posterior triangle of the neck, and a less well-marked lump on the right side. We found on examination that the lump was in the position of the seventh cervical vertebra, and projected forwards towards the first rib. It was tender when pressed upon, and the pain passed into her finger tips. Moreover, we found that the left hand was weak and the thenar eminence decidedly smaller than in the case of the right. We also found on inquiry that she had noticed that the hand tended easily to get cold, and that when working it became numbed. On examining the lump, the artery could be felt very easily passing over it. The skiagram showed two well-marked cervical ribs. I therefore recommended that, as she had symptoms on the left side, it was advisable to have the rib on that side removed, but thus far she has not made up her mind to undergo the operation.

Treatment and results.—This depends upon the extent of pressure symptoms present. If they are marked, as in the two cases I have just described, the correct treatment is to remove the rib, as I did in the first case. The steps of the operation I have already described to you. Among all the cases that have been published in which an operation was performed, no instance of death from the operation has been recorded, and this despite the fact that the dissection is a deep and rather difficult one, and that there is the danger of injuring the artery or one of the nerves. In one case the artery appears to have become dilated considerably after the rib was removed, the loss of support showing itself in further expansion. In two cases the operation caused perforation of the pleura, but the pneumothorax rapidly cleared up and no ill-effects resulted. The results of operations as regards the relief of symptoms have been very good. In the great majority of cases in which an operation has been performed the

patient has been relieved of the most troublesome symptoms, which were usually pain and weakness. In one case there was an actual recurrence, due, no doubt, to the fact that the rib was removed subperiosteally—*i.e.*, the periosteum was left behind—which would seem to be the easier way. It is important to remember, therefore, that in removing a cervical rib the periosteum should be taken away as well as the bone itself.

Reviews, etc.

The price of books submitted for review should in every case be stated.

The Diagnosis of Small-pox.—With reference to a recent review of a work on the "Diagnosis of Small-pox," by Drs. T. F. Ricketts and J. B. Byles, it has been pointed out to us that some misconception may arise from our comment on an acknowledgment in the preface of "Facilities extended" by the Metropolitan Asylums' Board. Our remarks might be interpreted as conveying a suggestion that the cost of the illustrations had been borne by the Board, and that the author had failed to make due acknowledgment. We desire to state, therefore, that such a suggestion would be without foundation, and that the author has amply acknowledged what assistance he derived from the Board.

Golden Rules of Dental Surgery. By Chas. W. Glassington, L.D.S. Edin., M.R.C.S. (John Wright and Sons.) Price 1s.

We have had the third edition of this excellent little book submitted for our perusal, and cannot speak too highly of its merits. There are nearly four pages at the end of this edition, devoted to "Forensic and Ethical Notes," which are interesting and instructive. We cannot, however, agree with the author when, as on page 70, he makes the dogmatic statement: "Never administer chloroform, ether, or ethyl-chloride, unless you have a medical qualification." Possessing a medical qualification does not necessarily pronounce a man to be efficient in administering anæsthetics, as it is only recently that the General Medical Council has made it compulsory for candidates for medical diplomas and degrees, to have a systematic course of instruction in anæsthetics. Surely the best qualification is evidence "of having attended such a course in a general or dental hospital under a skilled anæsthetist, in being examined on 'anæsthetics,' *and of having actually administered them to the teacher's entire satisfaction.*" Such a course is (as has been explained elsewhere) now compulsory for all intending candidates for the English diploma in dental surgery. The rest of this little book has already been reviewed in these columns. We must, however, state that there are several useful prescriptions within its pages, and that its compact form makes it very convenient to carry in one's waistcoat pocket.

In conclusion, we can sincerely recommend it to our readers as being of use to practitioners and students alike.

Papers, etc., Received.

The Poor Law Commission and the Medical Profession. By a Medical Practitioner. (London: A. C. Fifield.) Price 1d.

The author rightly remarks that "the conditions of medical practice are not favourable to the study of a document" such as the Report of the Poor Law Commission, in view of its bulk. He, therefore, briefly explains how the proposals of the Commission, if adopted, would affect the medical profession (confining his remarks, it should be noted, entirely to the Majority Report), and he sums up by condemning them as "highly detrimental to the whole medical profession," and urging that they "should be strongly opposed by all who have the interests of the profession at heart." He comments on the fact that the Commission contained but one medical man, and, pointing out the strong objections to the present contract system in dispensary practice, explains that the recommendations of the Commission would bring about a great extension of this system. "What the Commission recommend is, in short, a public system, supported by public money, of free medical relief on a basis of contract practice." These recommendations were repudiated not only by the four members who issued the Minority Report, but also by two who signed the Majority Report—Dr. Downes and Miss Octavia Hill.

The Unknown Life and Works of Dr. Francis Joseph Gall. An Address delivered before the "Gall Society" by Bernard Hollander, M.D. Price 1s.

To show the opposed views which have been held of Gall's work, the author quotes Sir Joseph Banks, who proclaimed Gall's doctrine "damned nonsense," and Sir Astley Cooper, who thought it would "bring immortality to its author." Few men of science have been more injured in reputation through a following of ignorant charlatans than Gall. It is his misfortune to have become associated in name with a stereotyped system, and systems are the tombstones of true science. The pamphlet before us seeks to reinstate him in his true position as a scientific observer, but at times it is unduly propagandist in tone.

Synoptic Chart of Cardiac Examination, arranged by John D. Comrie, M.A., B.Sc., M.B.

A description of this chart was published in our last issue. It only remains here to add that it is published by Messrs. Bale, Sons & Danielsson, and that the price is 2s. 6d. net. It may be of use to the junior student in learning the physical signs associated with the various forms of cardiac disease.

A Case of Ruptured Uterus.

MRS. H., aged 41 years, was admitted in labour on January 15th, 1909. Her first confinement occurred eight years ago, and was terminated with forceps after much difficulty. The second delivery was two years ago, and this was a transverse presentation which ended with version. The present is her third pregnancy. Labour began early on January 15th, and the membranes ruptured prematurely. She was seen by a doctor at 10 a.m., who found a vertex presentation. At 2 p.m. forceps were applied, but without success. Later on, version was attempted, and both legs were brought down, but the head could not be pushed up. The head was then perforated and further attempts at version made. As this did not succeed, the patient was sent to the hospital in an ambulance, a distance of about eight miles.

On admission, the temperature was 97°, pulse 80, and respiration about 24. The pulse was good, and she was not having pains at that time. The abdomen was very unsymmetrical in outline, and was much too tender for a thorough examination. The body of the uterus formed a large rounded tumour which projected forwards, and was chiefly on the left of the middle line. Below this was a depression crossing the abdomen obliquely downwards, from right to left, and in the right iliac fossa there was a second rounded hard swelling which felt like the fœtal head. The child's right foot protruded into the vulva. The wall of the uterus was so hard and tender that nothing further could be made out as to the position of the child. An anæsthetic was given, the external genitals were well cleansed, and a lysol douche given. When the hand was passed into the vagina along the right leg, it was found that the vertex and right thigh occupied the brim, but the head was not engaged, the greater part of it occupying the right iliac fossa. The cervix was quite soft and patulous, but was not drawn up. Passing the fingers further on into the uterus, a very strong ridge was felt, which corresponded with Bandl's contraction ring. From its oblique direction this evidently gripped the fœtus above the head and below the right buttock. There was thus a marked hour-glass contraction, the upper compartment containing the trunk, arms, left leg and placenta; while below the ring there was an over-distended lower uterine segment filled with the head and right thigh. It should be noted that much of the cervix did not take part in the lower uterine segment, though theoretically it should have been drawn up by retraction. As the head had not been crushed (though perforated), and as there was obvious contraction of the pelvis in the conjugate diameter, it was decided to apply the cephalotribe at once. The leg, however, was in the way, and as it could not be drawn down for amputation, it was thoroughly cleaned and then tucked back into the uterus without difficulty. The aperture in the fœtal head was enlarged with the perforator, the brain matter was washed away, and the cephalotribe then applied. Unfortunately the screw proved defective, and complete crushing could not be obtained. There had been two gushes of blood during these manipulations, and on passing the hand into the uterus with the view of applying the craniotomy forceps, it was found that the head had receded to the right side, and the ragged edge of a laceration could be felt. There was not much bleeding. The head could now be plainly felt beneath the abdominal wall, and thus the diagnosis of rupture of the uterus was confirmed. In spite of the rupture, the breech would not come down owing to the firm grip of the uterus; hence delivery could only be effected by abdominal section. Preparations were rapidly made, and laparotomy performed by a median incision. The whole uterus was brought out of the abdomen. The fœtal head was projecting into the peritoneal cavity through a longitudinal rupture just posterior to the right broad ligament. Through this rupture the child was easily extracted, as in a Cæsarian section, and then the placenta and membranes were removed. The peritoneum contained some blood-stained fluid, and a double handful of clot, and there was some hæmorrhage beneath the loose peritoneum on the right wall of pelvis. The edges of the ruptured muscle were easily sutured with catgut, and the loose peritoneum was separately united. A small gauze drain was passed through the lower end of the rupture into the vagina. Abdomen wiped out and closed. The pulse had been very small and rapid for some time, but it improved with saline infusion into the vein, stimulants, and warmth. The patient rallied for a short while and her colour improved, but she then became restless, and rapidly sank about three hours after the operation.

The autopsy showed a simple flat pelvis with a true conjugate of 3½ inches. There was about a pint and a half of bloody fluid in the peritoneum, but much of this was probably saline fluid poured in at the time of operation. All the viscera were anæmic, and the heart showed old aortic and mitral disease with regurgitation. The rupture was 5½ inches long, and extended down the right wall of the uterus to within one inch of the external os. The vagina was not lacerated.

The subject of the treatment of ruptured uterus has been discussed recently at the Obstetrical Society. Dr. Eden read a paper advocating abdominal section in most cases of this injury, with removal of the uterus by the supravaginal method of hysterectomy. The advantage of this line of treatment was the thorough control of hæmorrhage, which he regarded as the chief cause of death. In a few cases of slight laceration, gauze plugging from the vagina, or suturing the rent from the abdomen might be adopted. In the discussion that followed this paper, there was considerable difference of opinion as to the course of treatment advisable in this grave complication, the mortality of which is 70-80 per cent. Even if the patient escapes death by hæmorrhage and shock, there is still a great risk of fatal septic infection. "Prevention rather than cure" is pre-eminently true of rupture of the uterus.

Until further experience of the treatment by abdominal hysterectomy has been acquired, it will be best not to advocate it as a routine measure. If the child and placenta have been delivered by the vagina, then a thorough examination must be made.

a. Assuming that the peritoneum is not opened, and that the rupture has gone through the cervix and lower segment into the broad ligament, then the large wound should be thoroughly irrigated with hot saline fluid and packed tightly with sterilized gauze for twenty-four hours.

b. If the rupture has opened the peritoneal cavity low down in Douglas's pouch, so that good drainage can be secured, it will probably be best to treat the case with gauze packing around a large rubber drainage tube passed into the pelvis.

c. If, on the other hand, the child has partially or wholly escaped into the abdominal cavity, then abdominal section will be needed to effect delivery. Under these circumstances, the abdomen being open, and the child, placenta, and blood-clot having been cleared away, there are three modes of dealing with the lacerated uterus:—

1. To pack the rupture with gauze, which is pushed down into the vagina from above. Close the abdomen, leaving a long drainage tube in the lower end of the incision.

2. To suture the laceration as quickly as possible by drawing together the serous edges of the wound. If the muscle coat is thoroughly united, as in a Cæsarian section, more time will be required, and septic material may be enclosed between the edges of the uterine muscle. Close the abdomen with a drainage tube, as above.

3. To remove the uterus by supravaginal hysterectomy, or pan-hysterectomy if preferred. Owing to the softening effects of pregnancy, the tissues are loose, and the operation can be performed rapidly. But the veins in the cellular tissues are much more dilated than under ordinary conditions, and owing to infiltration with clot, it may be difficult to find the bleeding spots. To facilitate drainage the cut edges of the cervix must not be closed, but the serous membrane is sewn over as usual.

During this operation, as well as those above described, intravenous saline infusion is carried out, and all other methods of combating shock are adopted. T.

Notice.

CONJOINT EXAMINING BOARD.

NOTICE is hereby given that the entrance to the Offices is now in Savoy Hill, on the West side of the Examination Hall, facing the Savoy Hotel, Victoria Embankment.

FREDERIC G. HALLETT, Secretary.

Appointments.

Civil.

DAW, S. W., M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Resident Surgical Officer at the General Infirmary, Leeds.

MARRIOTT, OSWALD, M.D., B.S. Lond., L.R.C.P., M.R.C.S., has been appointed Surgeon to the Imperial Maritime Customs of China at Hong Kong.

NOLAN, H., M.D. Lond., LL.D., F.I.C., has been appointed Controller of the Division of Public Security, Ministry of the Interior, Egypt.

Naval and Military.

Staff-Surgeon J. G. WATT, R.N., has been appointed to the *Andromeda*.

Territorial Force.

2nd Home Counties Field Ambulance.—To be Lieutenant: G. T. WILLAN (dated April 3rd, 1909), and not as stated in previous issue.

6th London Field Ambulance.—To be Lieutenant: E. P. MINETT, M.D. (dated May 18th, 1909).

5th Southern General Hospital.—The undermentioned to be officers whose services will be available on mobilisation (dated July 21st, 1908):—To be Major: C. F. ROUTH, M.D. To be Captains: THOMAS HOLMES, M.D., J. T. M. MCDOUGALL (late Surgeon Royal Navy), MONTAGUE H. WAY.

Change of Address.

S. W. Daw, M.B., B.S. Lond., F.R.C.S. Eng., from Guy's Hospital to General Infirmary, Leeds.

L. W. Evans, L.R.C.P. Lond., M.R.C.S., from Guy's Hospital to the North Devon Infirmary, Barnstaple.

Bryden Glendining, M.S. Durh., F.R.C.S. Eng., from Guy's Hospital to 7, Devonshire Place, W. (Telephone 2876 Paddington).

C. C. Holman, M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., from Addenbrooke's Hospital, Cambridge, to Gate House, East Hoathley, Sussex.

Surgeon A. W. Iredell, R.N., from the Royal Naval Barracks, Portsmouth, to the Royal Naval Hospital, Plymouth.

R. C. Kirkby, L.R.C.P. Lond., M.R.C.S., from Towyn, Merioneth, to The Fort, Solva, Pembrokeshire.

H. V. Mitchell, L.R.C.P. Lond., M.R.C.S., from Beechcroft, The Leys, Tamworth, to Norfolk House, Carnarvon Road, Clacton-on-Sea.

H. D. Wyatt, L.R.C.P. Lond., M.R.C.S., from Court House, Hayes, Middlesex, to The Priory, Godalming, Surrey.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Sport.

Cricket.

Guy's Home Week.

FIRST MATCH—v. GRANVILLE (LEE).

Played Saturday, June 26th. This was the first match of our Home Week, and resulted in a win for the Hospital by 7 wickets. Granville batted first and scored 94. Montgomery took 7 for 24, and Kahlenberg 3 for 27. On Guy's going in, their first four wickets fell for 18 runs, and then Hunôt and Miller stayed together until close of play. Scores :—

GRANVILLE.

F. E. Lauder, c Montgomery, b Kahlenberg	2
N. Cockell, c Rice, b Montgomery	38
S. Platt, c Montgomery, b Kahlenberg	13
C. E. Kendal, b Kahlenberg	4
R. E. Lincoln, c Munden, b Montgomery	9
P. P. Lincoln, c Lee, b Montgomery	2
C. G. Young, b Montgomery	3
W. Austin, not out	10
C. Helder, c & b Montgomery	2
M. D. Browne, b Montgomery	4
T. L. Passmore, b Montgomery	0
Extras	7
Total	94

GUY'S.

H. Lee, b Young	8
M. Munden, c Austin, b Passmore	3
R. Montgomery, b Young	1
G. Andrew, b Young	2
F. C. Hunôt, not out	67
W. C. Miller, not out	29
Extras	4
Total for 4 wickets	114

F. D. Saner, W. Webster, G. Bergh, F. Kahlenberg, and C. E. Rice did not bat.

SECOND MATCH—v. M.C.C.

Played Monday, June 28th. Guy's won the toss and batted first on a wicket that had been affected by the rain. Our batting was not seen to very great advantage, three wickets falling for only twenty-two runs. Montgomery then joined Lee, whose score stood at eighteen. Montgomery played a long and patient innings, but could not get the ball away. He played five consecutive maiden overs, and altogether took an hour and a half to make his twelve runs. Guy's were all out for 61, which total our opponents passed with three wickets down. Kahlenberg bowled well for the Hospital, taking 6 wickets for 75. Scores :—

GUY'S.

C. H. Medlock, c sub, b Overton	0
H. Lee, b Overton	27
M. Munden, b Brown	2
H. D. Wyatt, b Brown	0
R. Montgomery, hit wicket, b Overton	12
A. H. Birks, b Overton	0
F. C. Hunôt, b Overton	0
G. Andrew, st Hubble, b Overton	4
F. D. Saner, c & b Overton	12
F. Kahlenberg, c Holton, b Brown	0
C. E. Rice, not out	0
Extras	4
Total	61

M.C.C.

F. Nightingale, b Kahlenberg	1
Hubble, c and b Kahlenberg	56
N. C. Cutter, c Munden, b Wyatt	0
M. Bell, b Wyatt	6
P. P. Lincoln, c Rice, b Kahlenberg	5
F. E. Lauder, c Andrew, b Rice	10
Dr. Holton, c Andrew, b Rice	7
A. O. Oppenheimer, c Montgomery, b Kahlenberg	57
C. Jelf, b Kahlenberg	24
Brown, c and b Kahlenberg	22
Overton, not out	4
Extras	16
Total	208

THIRD MATCH—v. THE PAST.

Played Tuesday, June 29th. Owing to rain this match was abandoned, after The Past had lost 7 wickets for 141 runs. For The Past Montgomery made 93.

FOURTH MATCH—v. FOREST HILL.

Played Wednesday, June 30th. Result, Guy's lost by 131 runs. Scores :—

GUY'S.

R. Montgomery, b Parker	13
M. Munden, lbw, b Flowers	8
F. C Hunôt, c sub, b Parker	1
C. H. Medlock, b Gillingham	35
G. Andrew, b Parker	2
N. E. Farr, run out	0
F. D. Saner, b Parker	8
F. Kahlenberg, b Parker	8
C. E. Rice, c Parker, b Gillingham	0
H. B. Neely, c and b Parker	0
E. J. Rhys Evans, not out	0
Extras	11
Total	86

FOREST HILL.

F. Odell, c and b Montgomery	2
H. R. Jordan, b Kahlenberg	22
H. Hall, c Rice, b Montgomery	0
A. O. Oppenheimer, c Rice, b Rhys Evans	121
S. A. Hunter, b Montgomery	6
C. F. Phillips, b Montgomery	1
J. H. Brough, c Munden, b Kahlenberg	1
J. S. Gillingham, b Rhys Evans	18
Flowers, b Kahlenberg	5
J. Day, c Rice, b Kahlenberg	15
F. L. Parker, not out	11
Extras	15
Total	217

FIFTH MATCH—v. THE THESPIDS.

Played Friday, July 2nd. Resulted in a win for Guy's by 23 runs. Scores:—

GUY'S.

C. H. Medlock, c Smith, b Campbell	7
W. C. Miller, c and b Pearce	16
F. C. Hunôt, run out	11
G. Andrew, b O'Connor	0
Harris, c O'Connor, b Campbell	62
M. Munden, lbw, b Welchman	9
T. R. Harvey, b Welchman	8
A. C. Hancock, c sub, b Smith	40
B. F. Sampson, c Smith, b Pearce	20
C. G. Morris, c and b O'Connor	7
E. J. Rhys Evans, not out	2
Extras	27
Total	209

THESPIDS.

A. Campbell, b Harris	39
H. T. Arnley, b Andrew	15
H. Welchman, st Munden, b Harris	3
H. E. Pearce, b Andrew	28
V. O'Connor, lbw, b Harris	11
C. A. Smith, c Medlock, b Andrew	40
F. B. O'Neill, not out	24
H. Stephenson, b Andrew	2
B. Egerton, b Harris	4
H. Mills, c Munden, b Andrew	0
Absent	0
Extras	20
Total	186

SIXTH MATCH—v. THE WANDERERS.

Played Saturday, July 3rd. Resulted in a drawn game. Scores:—

WANDERERS.

T. C. Stafford, c Rice, b Rhys Evans	36
P. G. Gale, b Andrew	7
L. S. Wells, c Miller, b Kahlenberg	24
S. Stafford, st Montgomery, b Munden	58
A. E. Waller, run out	8
A. G. Parsons, b Kahlenberg	73
D. L. A. Jephson, b Andrew	8
S. Colman, b Kahlenberg	13
V. T. P. Webster, b Andrew	0
O. Taylor, b Andrew	1
A. H. Behrend, not out	0
Extras	9
Total	237

GUY'S.

C. H. Medlock, b Taylor	5
W. C. Miller, c Jephson, b Wells	27
G. Andrew, b Taylor	28
F. C. Hunôt, b Stafford	23
R. Montgomery, c and b Jephson	35
M. Munden, lbw, b Jephson	4
H. Lee, not out	33
F. D. Saner, st Behrend, b Jephson	13
F. Kahlenberg, not out	1
Extras	6
Total for 7 wickets	175

C. E. Rice and E. J. Rhys Evans did not bat.

Lawn Tennis.

INTER-HOSPITAL CUP TIES.

The first round took place at Chiswick Park on Monday, June 28th, play, on account of rain, only being possible after lunch, when Guy's (holders) beat Bart.'s by ten matches to one, 21 sets to 3, 145 games to 68, and St. Thomas's beat London by nine matches to love 18 sets to 2, 115 games to 60.

The final between Guy's and St. Thomas's had to be abandoned on Tuesday, June 29th, and has been indefinitely postponed. Guy's v. Bart.'s—Result;—

H. Chapple lost to H. W. Scott, 4–6, 8–6, 4–6; A. S. Roe beat L. F. G. Lewis, 6–0, 6–3; H. Sharpe beat G. N. Stathers, 6–1, 6–1; R. Curle beat H. M. Coombes, 6–0, 6–1; G. C. Covell beat A. C. Sturdy, 6–4, 6–2; G. H. Hunt beat T. H. Just, 6–3, 6–2.

H. Chapple and H. Sharpe beat Scott and Stathers, 7–5, 4–6, 10–8.

A. S. Roe and R. Curle beat Lewis and Coombes, 6–3, 6–1; beat Just and Sturdy, 6–1, 6–0.

G. C. Covell and G. H. Hunt beat Just and Sturdy, 6–1, 6–1; beat Lewis and Coombes, 6–3, 6–4.

GUY'S v. PUTNEY.

SEMI-FINAL SURREY SENIOR CUP.

This match took place at Honor Oak Park on Thursday, July 1st, and resulted in a win for Putney by six matches to three, after some very even play:—Result:—

A. S. Roe and R. Curle lost to F. Good and W. A. Warman, 4–6, 7–5, 4–6; lost to R. S. Barnes and V. Woodhouse, 4–6, 6–1, 6–8; lost to J. Ganzoni and P. Jackson, 3–6, 2–6.

G. C. Covell and G. H. Hunt beat Good and Warman, 3–6, 6–3, 7–5; beat Barnes and Woodhouse, 6–3, 6–4; lost to Ganzoni and Jackson, 8–6, 3–6, 3–6.

H. Sharpe and H. L. S. Griffiths lost to Good and Warman, 1–6, 3–6; lost to Barnes and Woodhouse, 1–6, 3–6; beat Ganzoni and Jackson, 6–4, 3–6, 6–3.

1ST VI. v. BOUNDARIES.

This match took place at Balham on Saturday, July 3rd, and resulted in an easy win for the hospital by eight matches to one.

H. Chapple v. H. Sharpe beat J. C. Wright and J. H. Denison, 6–4, 6–4; beat E. J. Arrow and S. H. Bent, 6–3, 7–5, 6–0; beat H. M. Crisp and A. M. Hawkins, 9–7, 6–4.

R. Curle and A. S. Roe lost to Wright and Denison, 6–2, 6–8, 9–11; beat Arrow and Bent, 6–3, 8–6; beat Crisp and Hawkins, 6–4, 6–2.

G. C. Covell and H. W. Barber beat Wright and Denison, 6–4, 6–4; beat Arrow and Bent, 6–3, 4–6, 6–0; beat Crisp and Hawkins, 8–6, 6–4.

2ND VI. v. ST. MARY'S.

INTER-HOSPITAL JUNIOR CUP TIE.—SEMI-FINAL.

The 2nd VI. are to be congratulated on their good performance in retaining the Junior Cup for another year. After drawing a bye in the first round they beat St. Mary's in the semi-final on Wednesday, June 30th, by nine matches to five, and King's in the final, on Tuesday, July 6th, by eight matches to five. Results:—

N. Reader lost to G. S. Stathers, 0–6, 6–1, 2–6. R. H. Lucas lost to Goh, 6–8, 1–6. H. W. Barber beat Gosse, 6–1, 6–1. E. P. Poulton beat Hirsch, 6–4, 6–3. H. L. S. Griffiths beat Soutar, 6–4, 4–6, 6–0. L. Price Harris beat Reynolds, 6–0, 6–1.

Griffiths and Lucas lost to Stathers and Gosse, 2–6, 3–6; beat Hirsch and Soutar, 6–0, 6–2; beat Goh and Reynolds, 6–4, 7–5.

Barber and Price Harris beat Hirsch and Soutar, 6–2, 6–2; lost to Stathers and Gosse, 3–6, 2–6.

Poulton and Reader beat Goh and Reynolds, 6–1, 6–3; lost to Stathers and Gosse, 5–7, 7–5, 3–6; beat Hirsch and Soutan, 7–5, 6–4.

2ND VI. v. KING'S.

INTER-HOSPITAL JUNIOR CUP TIE.—FINAL.

N. Reader beat C. F. McDonald, 1–6, 6–4, 6–3; E. P. Poulton beat J. Everidge, 6–1, 6–2; H. W. Barber lost to H. D. Kanga, 6–8, 4–6; R. H. Lucas lost to K. J. Sing, 0–6, 4–6; H. L. S. Griffiths beat H. Addison, 6–1, 6–1; L. Price Harris beat J. Wakeley, 6–3, 6–1.

Barber and Price Harris beat Everidge and McDonald, 6–0, 10–12, 6–2; beat Wakeley and Addison, 6–1, 6–3.

Reader and Poulton lost to Kanga and Sing, 6–4, 3–6, 5–7; beat Wakeley and Addison, 6–1, 4–6, 6–4.

Griffiths and Lucas lost to Everidge and McDonald, 7–5, 5–7, 5–7; beat Wakeley and Addison, 8–6, 6–2; lost to Kanga and Sing, 5–7, 1–6.

Guy's Hospital Swimming Club.

Annual Gala.

The above fixture took place at the Southwark Baths on Friday evening, July 2nd, before a moderate number of spectators. Those who were present, however, were treated to some excellent performances, several of the races being very closely contested. The scratch events, a two lengths race, a quarter-mile race, and a long plunge competition, were productive of very good work on the part of Messrs. York Moore, Pern, and Pryce Davies, the respective winners.

The annual ladies' race, of such interest to the Nursing Staff, unfortunately had to be abandoned owing to the small number of entries. A special feature in this year's entertainment was a musical programme, contributed by a string orchestra of five ladies and gentlemen, under the direction of Mr. H. Gardiner, who provided us with most delightful music throughout the evening.

Amongst the items on the programme were a display of life-saving by members of the City Police Swimming Club, including a demonstration of Schäfer's method of artificial respiration; a display of neat and graceful diving by Messrs. Errington, Grimwade, Hughes and Pott, of the Amateur Diving Association, some of whose running swallow dives specially evoked applause; and a full-clothes race, won by Mr. W. T. Clarke, which caused a great deal of amusement, The usual obstacle race, consisting of three preliminary and a final heat, was also loudly applauded, the ingenuity of some of the combatants in scaling a horizontal pole by means of a rope ladder being only excelled by the ludicrous failures of others. The neat diving competition, won by Mr. Reckitt, was also of great interest, the judge's decision being received with loud cheers from the gallery.

The programme closed with a friendly polo match, Guy's v. Mr. R. H. King's team. Although strengthened by the presence of Mr. Graham Marshall, Mr. Littlewood, and other well-known players, our opponents had weak spots, and these being quickly found, a rather one-sided game ended in our favour by seven goals to one. There were, however, many exciting incidents, and the game was watched with great interest.

At the conclusion, Sir Alfred Fripp invited Mrs. Steward to distribute the prizes, and called for three cheers in her honour. The President then, in a short speech on behalf of the Club, thanked Mrs. Steward for coming down to the entertainment; thanks were also due to the gentlemen who kindly assisted in judging the events, to the ladies and gentlemen who presented prizes, and to the members of the orchestra who had done so much to brighten and enliven the proceedings. Cheers were then given for Sir Alfred Fripp.

PROGRAMME.

1. SIXTY-SIX YARDS SCRATCH RACE.—Final heat. Prize presented by Sir Alfred Fripp, K.C.V.O. 1, J. York Moore; 2, H. L. Hitchings; time, 44 secs.

2. LONG PLUNGE.—1, J. Pryce Davies, 55ft. 10in. 2, J. H. Rhodes, 44ft. 2in.

3. DISPLAY OF LIFE-SAVING BY CITY POLICE. Instructor, Mr. Leggatt.

4. SIXTY-SIX YARDS HANDICAP.—Prize presented by Mrs. F. J. Steward. Final heat. 1, M. Pern, 5 secs.; 2, J. York Moore, scratch; 3, H. G. Rice, 3 secs.; time, 48½ secs.

5. NEAT DIVING.—Judged by Mr. H. J. Grimwade. Prize presented by Guy's Hospital Gazette. 1, C. E. Reckitt; 2, F. Edey.

6. QUARTER MILE.—Prize given by J. Lewin Payne, Esq. 1, M. Pern; 2, A. Moberly; time, 6 mins. 42⅘ secs.

7. DISPLAY OF DIVING BY MEMBERS OF THE A.D.A.

8. OBSTACLE RACE.—Prize presented by C. H. Fagge, Esq. 1, A. V. Moberly; 2, T. B. Layton.

9. FULL-CLOTHES RACE.—1, W. T. Clarke; 2, E. W. Bacon.

10. POLO MATCH.—Guy's v. Mr. R. H. King's Team. Result, Guy's won by 7 goals to 1. Teams.—Guy's: Goal, H. N. Eccles; backs, H. G. Rice and W. T. Clarke; half-back, A. V. Moberly; forwards, H. H. Glover, F. York Moore and M. E. Ball. Mr. King's Team: Goal, R. H. King; backs, G. H. Pellowe and T. E. H. Tanton; half-back, Graham Marshall; forwards, G. H. Bonny, L. C. D. Irvine, and C. M. Littlewood.

Guy's Hospital Rifle Association.

The Annual Prize Meeting took place on Wednesday, July 3rd, at Bisley. In the morning the wind was tricky and no good scores were made, but later in the afternoon the conditions were more favourable. We have to thank Dr. Beddard and Messrs. Down Bros. for their contributions to the prize fund.

1. NEWTON PITT COMPETITION.—H. Platts, 95. Prize, The Cup.

2. HANDICAP COMPETITION.—H. Platts, 95, barred for winning No. 1; G. A. Blake, 90+4=94, 1st prize, 15/–; H. L. Attwater, 93, 2nd prize, 10/–; E. O. Yerbury, 90, 3rd prize, 5/–.

3. 900 YARDS COMPETITION.—H. Platts, 30, 1st prize, 15/–; H. L. Attwater, 29, 2nd prize, 10/–; G. A. Blake, 21, 3rd prize, 5/–.

4. 600 YARDS COMPETITION.—H. Platts, 45, 1st prize, 15/–; H. L. Attwater, 40, barred for winning two prizes in morning; E. O. Yerbury, 40, 2nd prize, 10/–; W. Robinson, 3rd prize, 5/–.

5. AGGREGATE COMPETITION.—H. Platts, 170, 1st prize, presented by Messrs. Down Bros.; H. L. Attwater, 162, 2nd prize, Carvers, presented by H. J. Grattan; E. O. Yerbury, 150, 3rd prize, Stethoscope, presented by Holborn Surgical Instrument Company.

The final scores for the Armitage Cup:—

GUY'S.	ST. MARY'S
507	469*
546	534
541	550
497*	530
1594	1614

* The three best scores count. St. Mary's therefore won the Cup again this year.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; St. Thomas' Hospital Gazette; The Nursing Times; Polyclinic; Charing Cross Hospital Gazette; Indian Medical Gazette; London Hospital Gazette; South African Medical Record; St. Bartholomew's Hospital Journal.

Pass List.

UNIVERSITY OF LIVERPOOL.—Diploma of Tropical Medicine: Captain H. P. W. Barrow, R.A.M.C.

BOOKS RECEIVED.—Hart's How to Cut the Drug Bill; Heath and Pollard's Minor Surgery; Lane's Operative Treatment of Chronic Constipation; Mummery's After-Treatment of Operations, 3rd edition; Giles's Female Generative Organs; Pye's Surgical Handicraft; Barnet and Austen's The Campaign against Microbes; Savill's Hysteria; Emery's Immunity and Specific Therapy.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

Births.

ACKROYD.—On June 14th, at Homeside, Great Shelford, Cambridgeshire, the wife of Harold Ackroyd, M.A., M.B., B.C., of a daughter.

HAMMOND-SMITH.—On June 29th, at 211, King's Road, Reading, to Mr. and Mrs. A. Hammond-Smith, a son.

PRICE.—On June 25th, at the Croft, Orpington, Kent, the wife of C. E. Price, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

ROUTLEY.—On June 25th, at Church Lane, Aldershot, to Dr. and Mrs. E. W. Routley, a son.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

July.
Thu. 29. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Tolhurst).
August.
Mon. 2. Bank Holiday. Medical School Office closed.
Thu. 5. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Price and Lucey).
Fri. 6. Wills Library closed until August 28th, inclusive.
Sat. 7. Dental Conservation Room closed until August 30th, inclusive.

Passim.

THE Summer Session came to an end yesterday, and the Medical School now enters on its period of hibernation—that form of hibernation which consists in resting during the summer! Lecture rooms and laboratories are closed until the quickening touch of autumn comes to scatter their dust once more. What happens to the lecturers during the interval no one definitely knows. Some, perhaps, retire to the country to enjoy the delights of three acres and a cow; others are busy with guns and golf-clubs; and others, again, go through the giddy round of amusement at this or that medical congress, combining golf, bridge and social frivolity with scientific papers and discussions, the latter forming excellent excuses for the former.

MEANWHILE, we would refrain from truisms, such as pointing out that the Hospital itself knows no vacation, that its doors stand open day and night, summer and winter, under a Liberal or a Conservative Government. Somehow, nevertheless, the holiday time of the year affects it; it wears a jaded appearance, as though longing for the clean country. Most of the Staff who are about the place are doing someone else's work as well as their own. For the work still comes in its ordinary amount; our clients know nothing of a London season or a vacation.

THE Library will be closed from August 6th to August 28th inclusive. Our next two issues, therefore, may be obtained by subscribers who get their copies personally, from the office of the Secretary to the Treasurer.

WE note with interest that Sir Alan Reeve Manby, M.V.O., who is an old Guy's man, has

been appointed Physician Extraordinary to His Majesty the King. Sir Alan Manby has been for some years Surgeon Apothecary to His Majesty at Sandringham, and he accompanied T.R.H. the Prince and Princess of Wales during their Colonial tour.

THE concert held on July 13th under the auspices of the Guy's Operatic Society was a great success, and augurs well for the future of the Society, when it undertakes the performance of a complete opera in the autumn. The concert received a gratifying amount of support from the daily press, and for an initial effort was a very creditable performance for Mr. Irvine and his fellow-workers. We shall look forward with interest to future appearances of the Society.

AN announcement of some importance to London University Students has been issued by the Medical School Office. In order to comply with the revised regulations of the University, the appointment of Obstetric Dresser will in the future be held for three months instead of two, as heretofore. This alteration, however, does not apply to students who passed the Intermediate M.B. before July, 1908. The Medical School Office also announces that, in filling future vacancies for the appointment of Extern, preference will be given to those who have already held the appointment of Obstetric Dresser.

IT is announced that the first appointment to the Arthur Durham Travelling Studentship has been made to Mr. W. M. Mollison, M.C., F.R.C.S., who will go abroad in October. Mr. E. Bellingham Smith has been appointed the first holder of the Douglas Studentship in Actinotherapeutics.

A COMMITTEE of officers of the Royal Army Medical Corps has been investigating every febrile case occurring among the troops stationed in Malta and Crete, distinct from Malta fever itself. Nearly all these fevers have been traced by the committee to a virus conveyed by the owl midge—*Phlebotomus papatasii*, which is an insect scourge in these islands during the hot weather when the fever is prevalent. An old Guy's man, Lieutenant Howard Graeme Gibson, who quite recently left us for the R.A.M.C., offered himself for the crucial experiment. "He submitted to the bites of specimens of these insects which eight days previously had fed on a patient during the first day of his illness. A week later Lieutenant Gibson was seized with vomiting, severe pains in his head, back, and limbs, and pyrexia, which continued for three days." Thus another insect-carrier has had the responsibility of conveying disease brought home to it. The owl midge is probably in for a thin time in the future. We congratulate Lieutenant Gibson on his "nerve."

WE have received the following eye-opening little anecdote from a lady. We are the more diffident, therefore, in questioning its veracity, and leave it to the mercy of our readers:—

> "Once upon a time, a man went to a London hospital to have his eyes cleaned. After one eye had been taken out and placed on the table (??) the doctors were called away suddenly, and they went off (???) leaving the door open, the patient of course being unconscious. Thereupon the cat came in and ate the eye on the table. The doctors returning, killed the cat, and replaced the missing eye with one of the cat's, and ever after the man could see with one eye in the light, and with the other in the dark."

HERE is another anecdote, the truth of which we can vouch for, though it has every appearance of being a "chestnut." A child, who seems to have been a believer in pigmentation resulting from chronic intestinal stasis, hearing the word "constipation," remarked proudly: "I've been constipated. I've got the marks of it on my arm."

We have received a letter, which will be found in our correspondence column, from a lady who writes to suggest that on future Prize Days the "pathological specimens" in the museum should be covered up so as not to distress our lay visitors. By this we assume she refers only to the wax skin models, for, if all the pathological specimens in the museum were to be covered, there would be little left to see. These skin models certainly do shock the minds of some visitors who are unaccustomed to such sights, and have the usual lay aversion to anything dermatological, which is reflected in the Front Surgery mother's indignant denial of any "blemish" about her infant's skin. We think there is something to be said for the suggestion of "A Doctor's Wife," but, on the other hand, we have sometimes suspected that the assumed horror of our museum visitors was a little mixed with morbid curiosity, which the covering up of the specimens would probably tend to heighten.

We regret that several mistakes were allowed to pass uncorrected in our report of Dr. Hale White's speech on Prize Day. The old Guy's man to whom he referred as a professor of physiology was, of course, Professor Starling of University College, London; not Professor of Physiology in London University, as our report stated. In speaking of the ancestors of the Duke of Devonshire, Dr. Hale White mentioned William Cavendish, who was one of the original Fellows of the Royal Society in 1663; and Henry Cavendish, the famous chemist, born in 1731, who discovered the composition of water. Our report incorrectly referred to Henry Cavendish as an original member of the Royal Society.

At the recent Royal Agricultural Show at Gloucester, the prize for the best cultivated farm in Herefordshire was awarded to Mr. Thomas Andrews, the tenant of Guy's Hospital farm of Stretton Court, near Hereford. The farm is a large one of 450 acres, and the tenant is a gentleman of some 75 years, so the result is both surprising and very creditable.

We regret to announce the death of an old Guy's man, Mr. Alfred Edward Wilmot, M.R.C.S., L.R.C.P., J.P., who died at his residence, Burnham House, Bucks, on the 21st of last month. Born in Melbourne, Mr. Wilmot came to England for his education, and qualified from Guy's in 1864. He settled in practice at Burnham in 1880, where he held the posts of Medical Officer and Public Vaccinator. He also took a prominent part in local politics from the standpoint of staunch Conservatism. He was appointed a Justice of the Peace for the County of Bucks in the early part of this year. His recreation was an enthusiastic pursuit of golf. The large attendance at his funeral at S. Peter's, Burnham, bore witness to the great esteem in which he was held in the neighbourhood.

From the Gazette's Special Pathologist.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the Manager, Gazette Office, Guy's Hospital.

Some General Conditions resulting from Oral Sepsis.

By T. B. LAYTON, M.S.

CASE 1.—On January 25th, 1905, Mr. Jacobson gave a clinical lecture on the following case :—

"E. H., female, æt. 15. Admitted November 2nd, 1904, with severe and rapidly fatal results of stomatitis and 'pyorrhœa alveolaris.' Temperature 101°; pulse 124; respiration 24. Early this year bleeding from gums. Diet largely weak tea, bread and potatoes. Long-standing indigestion. No history of a severe illness; one of rheumatism. Glands at angles of jaw began to enlarge in July. In August, 'abscess of jaw.' All the teeth that can be seen show gums much loosened and detached, this being especially marked about the upper front teeth and bicuspids, where the teeth are exposed almost to the fang-tips. Anterior walls of several alveoli gone. Tartar and sordes between the detached gums and teeth. Gums covered with foul pus and blood, and, where they hang loosely, similar pus can be squeezed out by gentle pressure. Upper right bicuspids carious, and behind these muco-periosteum raised from the maxilla, forming a cavity full of fetid green pus. Foul ulcers on the inner surface of lips and cheeks. Both lips stiff and swollen; upper greatly so. Temperature, November 4th, 103°. Death, with septic pneumonia, November 5th."

Mr. Jacobson pointed out how the term pyorrhœa alveolaris was a bad one, as there was no pus in the earliest stages of the disease, and suggested the term periodontitis as a substitute. He also laid stress on the fact that the septic mouth condition might be the cause underlying many cases of long-standing anæmia, pyrexia, or neuritis, and intractable joints with sub-acute inflammation, many of which are labelled osteo-arthritis or rheumatism.

That such cases are both common and extremely important may be seen from the following examples which have come, among others, under my own notice during the past two years.

I give examples here only of remote general conditions secondary to the oral sepsis, and do not include any illustrating the manifold disturbances of the mouth, pharynx, lungs, and stomach, which can be more directly traced to the teeth.

Having given Mr. Jacobson's notes on the local condition of a typical advanced case, this will not be repeated under each succeeding one, for in all of them the condition was similar, though less marked.

CASE 2.—Frances E., a stout woman, æt. 59, had several teeth removed in the Dental Out-patient department one Saturday morning in March, 1907. Following on the extraction was some severe hæmorrhage, which could only be partially stopped, and which continued to ooze. She was taken into Martha, under Mr. Lane, the sockets plugged with adrenalin soaked on gauze, and was given ice to suck. The bleeding stopped at 2 a.m. next morning, but she was kept in till Monday afternoon. She then went home to Greenwich in a cab, but next morning (Tuesday) at 6 a.m. the mouth began to bleed again profusely. A doctor was called in, and he managed to stop the bleeding, but the patient's temperature rose, and she died the following Saturday from septicæmia with septic pneumonia.

In this case the oral sepsis was probably the reason why the bleeding could not be stopped, and why it recurred again; then, as a result of this secondary hæmorrhage, the patient's resistance was so lowered that she succumbed to the septicæmia.

CASE 3.—An analogous case was that of a young German, Hermann L., æt. 19, who came up on February 20th, 1907, with the history that he had had a tooth (first left lower molar) removed by a chemist in Soho on the 18th; that the chemist had had great difficulty in stopping the bleeding; that it had recurred next day, and though he had applied the actual cautery to the socket, this chemist had been unable to do more than temporarily stop the bleeding.

The man was very pale, his pulse 100, and he almost fainted in the surgery. He was taken into Astley-Cooper, under Mr. Lane, and the dental house-surgeon plugged the tooth-socket with glycerine of tannic acid, made the man bite on Stent's composition, and then tied the jaw up with a four-tail bandage. This had to be repeated in four hours time, and again early next morning; the man was fed through a feeder, and drank water copiously; he was also given chloride of calcium in large doses. In spite of this treatment, the mouth continued to bleed, and his pulse rose to 130. During the next two days the tooth-socket was plugged repeatedly in a similar manner, and on the morning of the 23rd it was necessary to give him a continuous saline infusion into his axilla. Early next morning, February 24th, the composition method of plugging was given up, and the cavity in the gum, which, from the repeated plugging, was now big enough to admit the tip of the finger, was tightly packed with gauze soaked in adrenalin, and the gum sewn across, from side to side, with strong cat-gut. This was successful, and was left in place till the cat-gut was absorbed, and came out five days later. (Chart A.)

There was no history of former bleeding in this case, nor of any in the man's family. We have here, then, a case of oral sepsis causing hæmorrhage, which lasted for a week after the tooth extraction, resisted repeated attempts to control it, and which was very nearly the cause of death in a strong youth, who otherwise had no disease at all.

CASE 4 is an example of a different complication of teeth extraction in an otherwise healthy young man affected with periodontitis.

William W., æt. 29, was admitted, on September 8th last, to the Hereford General Hospital, under Mr. Wood. Patient's mouth was very foul; the urine contained a trace of albumen. He was anæsthetised with chloroform, and sixteen teeth or stumps were removed

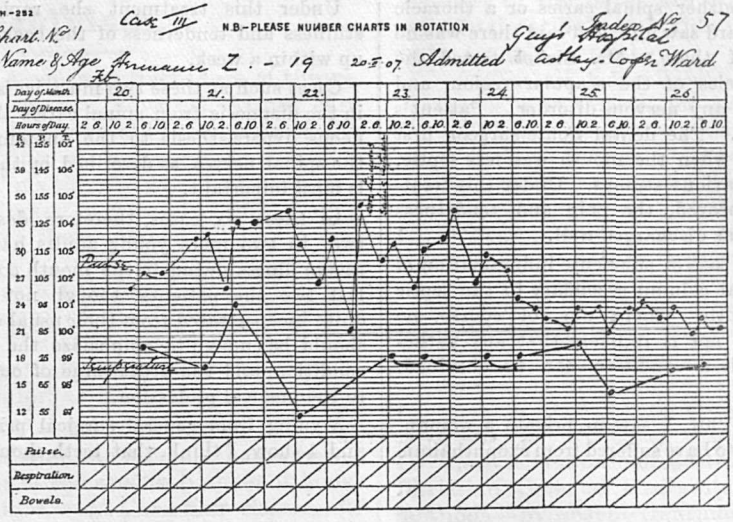


CHART A.

by the visiting dentist. That evening the temperature went up to 101·8°. He then seemed to improve, but ten days later the temperature rose again, and on the twelfth day after the teeth extraction he vomited, and he had a shivering fit in the evening. This occurred again next evening, and then, after three days of moderate pyrexia, on four more successive evenings. During this time, except for the feeling of malaise, associated with the fever, the patient had pain in the epigastric region, but no other symptom. He was carefully examined, but on no occasion could any other cause, beyond the septic condition of his mouth, be found to explain the condition. The albumen disappeared from the urine on September 22nd, the temperature first touched normal on October 7th, and then ran a subnormal course until October 19th, when it came back to the normal, and the patient was discharged on October 30th. During all this time the patient's mouth was treated with 1·20 carbolic soap, and he was given Liq. Hyd. Perchlor. as an alimentary antiseptic.

I think this case must have been one of septicæmia, due to the mouth condition. No culture from his blood was taken; from his mouth both a streptococcus and a staphylococcus were grown. (Chart B.)

CASE 5.—Thomas G., æt. 30, came up to Out-patients in December, 1906, suffering from pains in the back and side. He was tender over the spines of his vertebræ, but this hyperæsthesia was indefinite in distribution, and did not correspond to any particular dorsal nerve. He was sent in under Mr. Lane, under the suspicion

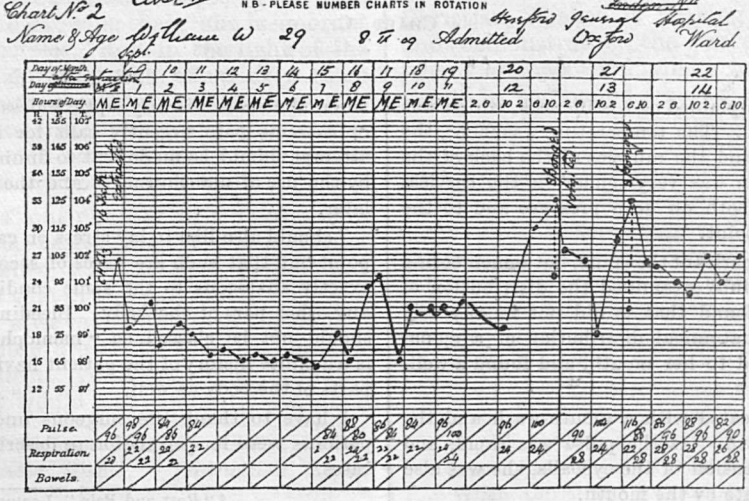


CHART B.

that he might have either spinal caries or a thoracic aneurysm. Dr. Beddard saw him, and said there was no evidence of either of these. Mr. Sichel tested the reaction of the muscles of the scapular region, and found no evidence of any nervous disorder. Patient's mouth was very foul. The dental house-surgeon first scaled his teeth, and when the mouth was less septic, extracted numerous carious stumps. Under this treatment he rapidly improved, the pain and tenderness disappeared, and he was discharged well.

I think this was a case of sub-acute inflammation of the joints of his spinal column secondary to the septic condition of his mouth. There was, of course, no definite proof of this, nor is it likely that any pathological proof of such a condition can be obtained. (Chart C.)

CASE 6.—In April, 1907, I saw in private a woman, æt. 28, who was known to have suffered from exophthalmic goitre. She then complained of a stiff neck, which was causing her great pain. The temperature was 99·5°, the head was held awry, and the muscles of the back of the neck kept rigid. She was very tender in the cervical region of the spine, both on deep pressure and to the light touch of a pin-point.

I was suspicious of caries of the spine, but remembering the last case, I carefully examined the distribution of hyperæsthesia, and found that it did not in any way correspond to the anatomical distribution of a spinal nerve. I then turned to her mouth, and found a well-marked periodontitis.

The mouth was treated with a mouth-wash and the use of the tooth-brush. As the pulse was rapid, and there was some protrusion of the eyeballs, she was also given sodium phosphate by the mouth.

Under this treatment she rapidly got well; the stiffness and tenderness of the back of the neck cleared up within a week.

Cases such as these two must be far from uncommon; in the diagnosis from spinal caries the relation of cutaneous hyperæsthesia to the anatomical distribution of the spinal nerves, as described by the late Mr. Hilton,* is most important.

In these six cases, therefore, death has resulted in two, in two more young adults have gone through a severe illness owing to the mouth condition, and in the last two the patients, though not seriously ill, were quite incapacitated from their usual occupations. These should be enough to emphasize the importance of the condition, and the great value of our dental colleagues to the medical profession.

Arguing from general surgical principles, cases 2, 3, and 4 show, I think, that teeth should not be extracted

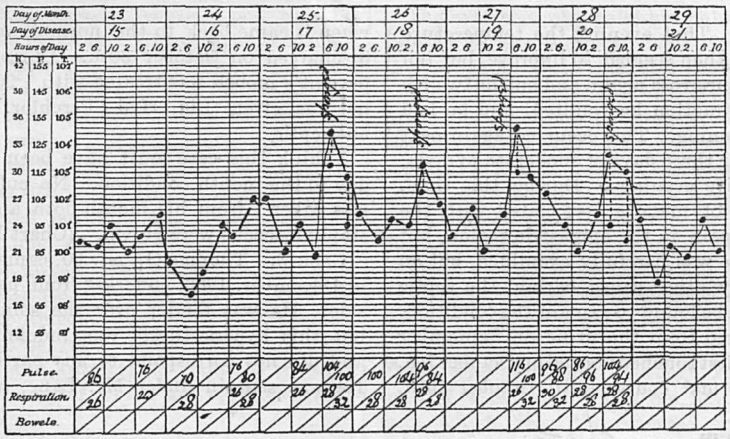


CHART C.

when the mouth is very septic unless the local condition or extreme pain urgently calls for it; but that some attempt should be made first to diminish the oral sepsis by the use of mouth-washes and the teeth be extracted later.

I should also like to lay stress on cases 2 and 3, and to point out that such are cases of secondary hæmorrhage exactly analogous to the same condition in wounds in any other part of the body. Bleeding from the mouth should not be classed as "hæmophilia" unless there is a definite history of the patient having bled from other parts of the body as well.

I have to thank the surgeons under whose care the patients were for permission to describe their respective cases.

* "Rest and Pain," Lecture V.

Eddyism.*

THOSE who have a sense of the fitness of things, even in regard to the use of words, do not care to find honoured and reputable members of the dictionary appearing in bad company or false surroundings. Thus the two words "Christian" and "Science," taken separately, rank among the very highest of their fellows in the C's and the S's respectively; taken together they have become debased as a title for a sect which has earned the contempt of the Christian and the Scientist alike. For this reason we wish the sect was more generally known by the name of its notorious founder, as Eddyism—a vile word, worthy of the ideas it connoted.

The writer of "Confessio Medici" has adhered to the usual name of the sect in his recent book, *The Faith and Works of Christian Science*, in which, expanding some paragraphs from his earlier essay on "The Discipline of Practice," he subjects Mrs. Eddy's work to a critical examination. To such a task he brings all those charms of kindly humour and humanity, professional insight and acuteness of vision, sympathy and (when merited) sarcasm which, in "The Young People" and "Confessio Medici," have already endeared him to his readers. In such a subject as Christian Science he finds, alas, too few opportunities for exercising these charms. We come across little essays, or germs of essays, on such subjects as hospital work, quietism, and common sense, but we have to be hurried away from these, just when our interest is being awakened, to details of Mrs. Eddy's shams—sham philosophy, sham religion, sham medicine.

After examining Christian Science in the light of philosophy, and showing that "she is ignorant of the first principles," and in the light of the Christian Faith, of which she offers us a mere burlesque, the author passes on to the question of the lower animals, which Christian Science seems to leave out of account, and to the reality of pain and disease in them and in us.

Then follows a long chapter of "Testimonies of Healing"—200 cases, some of the successes of Christian Science. The testimony, including the diagnoses, is that of the patients themselves, often illiterate, always ignorant of medicine; consequently, there are to be found "blunders such as the idlest, youngest, and stupidest medical student would not commit." A great majority of the cases are obviously functional, vaguely described as "kidney trouble," "rheumatic trouble," etc.:—

> "What are kidney trouble, lung trouble, heart trouble, liver trouble, and eye trouble? They are not chronic nephritis, phthisis, valvular disease, cirrhosis, and cataract. Bowel trouble is ordinary constipation; stomach trouble is ordinary indigestion and aversion to food; spinal trouble is ordinary backache. These are not testimonies, but testimonials — every advertisement of a new quack medicine publishes the like of them. We all know Mr. A. and Mrs. B. and Miss C., who bear witness to So-and-so's Pills. They had spinal trouble and kidney trouble. There is a rough sketch of them, doubled up with pain, or weeping at the family tea-table. And it is certain that the pills did them good."

Where it is a case of serious organic disease, Christian Science treats it by just the same methods—by absent treatment, by showing the "omnipresence of Love," or what not. The following case is an example:—

> "The patient had had an early carcinoma, diagnosed by ——, of Guy's, who said it was a very favourable case for operation. She was going to have it removed, when a relative, who is an ardent Christian Scientist, persuaded her very strongly to have it treated by Christian Science. I only saw her in the last stages of the disease, when any form of treatment was absolutely hopeless. . ."

The real *crux* of the question is here. In functional cases Christian Science can cure and has cured: her method is suggestion, pure and simple. In many cases, too, no doubt, she has cured her followers of drink and drug habits—all credit to her for that. But with organic disease and injury she cannot alter the course of Nature. A cancer grows and is fatal while Christian Science is praying over the patient and demonstrating the unreality of disease, where an operation might have saved life for years; a compound fracture suppurates no less because a Christian Science practitioner is busy "voicing the Truth"; a baby dies from laryngeal diphtheria because absent treatment is not so efficacious as antitoxin.

At times it seems vain to argue about such a subject as Christian Science. To those of us who see anything of hospital work the facts of disease and pain are often so bitterly real that to deny their existence seems, to say the least of it, the thoughtlessness of fools.

> "Every discovery comes to stand at the judgment-seat of Common-sense; it may be at once or it may be at last, but they all take their turn to stand there; and so must Christian Science. . . . When Christian Science says that accidents are

* *The Faith and Works of Christian Science.* By the Writer of "Confessio Medici." (Macmillan & Co.) Price 3s. 6d. net.

unknown to God, common-sense answers that, anyhow, they are not unknown to us. When she says that the Allness of Diety is His Oneness, I would rather not repeat what common-sense says. When she says that germs exist only in mortal mind, common-sense offers to inoculate any Christian Scientist with anthrax or tetanus. . ."

In this kindly humour our author approaches his subject. But we wonder, after all, if Eddyism is worthy of such a cultured critic. Carlyle, that mighty opponent of shams, would have made short shrift of Mrs. Eddy and all her works. "Compounded of Solecisms, Shams, and demented-pedantic Quackery, this Christian Science: fit only for one thing, to be flung into Limbo," might have been his verdict. The writer of "Confessio Medici," on the other hand, has taken the trouble to examine the subject in the light of philosophy, religion and medical science before declaring it a sham.

We look forward eagerly to the appearance of his next book, sincerely hoping, however, that its subject will be more worthy of its author's literary talent. Let him leave Christian Science to the medical journalist.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants in the Medical Wards.—Messrs. H. Steinbach (Dr. Hale White), F. D. Saner (Dr. Pitt), J. Godfrey Saner (Sir Cooper Perry), R. P. Ballard (Dr. Shaw).

Ophthalmic Dressers.—Messrs. W. S. Kidd, N. A. D. Sharp (Mr. Eason); F. S. D. Berry, W. Ledlie (Mr. Ormond), August 1st; G. H. Hunt, G. H. Peall (Mr. Eason); R. C. H. Francis, H. F. Renton (Mr. Ormond), September 16th.

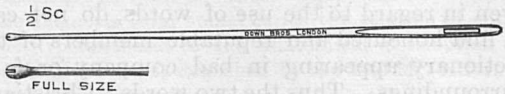
Surgeons' Dressers.—Messrs. F. A. Dick, W. E. Fox, E. P. Poulton, A. Stanley Roe (Mr. Symonds); M. C. Thavara, E. Billing, A. L. Gardner (Mr. Lane); E. A. Penny, G. B. Cockrem, G. Y. Thomson (Mr. Dunn); J. A. Edmond, B. T. Verver, R. Stout (Sir Alfred Fripp).

Obstetric Dressers (September–October.)—Messrs. T. D. M. Stout, A. Neville Cox, H. Gardiner (Mr. Targett); T. Lewis Jones, G. Maxted, G. Dunderdale (Mr. G. B. Smith).

Externs.—G. H. Hunt, W. T. Chaning Pearce, H. L. Attwater, A. L. Saul, H. W. Doll (August); H. G. Rice, F. S. Adams, C. E. Reckitt, R. Montgomery, M. M. Munden (September); K. T. Khong, J. Pryce Davies, W. H. Talfourd Jones, A. D. Vazquez, J. H. Owen (October).

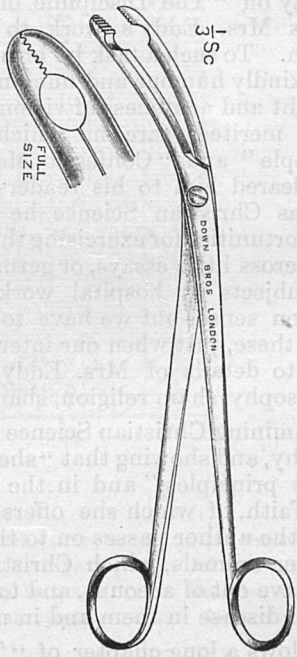
New Instruments.

A New Sinus Probe.



An extremely useful probe has been designed by Mr. B. T. Verver, intended to substitute the use of sinus forceps when inserting gauze drains, particularly in mastoid wounds, but also generally applicable to any wound or sinus. By catching the gauze drain in the shallow terminal slit, one is enabled to pass a drain into the narrowest sinus with a minimum of pain and discomfort to the patient, and without repeated withdrawals, owing to the drain getting caught in the jaws of the sinus forceps. It is found from experience that the withdrawal of the probe always leaves the drain *in situ*. It was made for Mr. Verver by Down Bros.

A New Sterilizer Forceps.



This instrument has been designed or removing instruments, and particularly glass syringes, from the sterilizer. The serrated extremities allow of a firm grip on instruments, however small, while the hollow in the jaws accurately fits the neck of the piston of a glass syringe, giving an absolutely safe hold, and thus avoiding the breakages due to slipping, which are so common with the forceps in general use.

The instrument, which has been designed by Mr. B. T. Verver, and is made by Down Bros., is being used with complete success at Guy's Hospital.

Sudden Death.

CLINICAL LECTURE BY DR. HERBERT FRENCH.

GENTLEMEN,—I thought that to-day we would at any rate begin to discuss the subject of sudden death; and by sudden death in this connection I do not mean to include railway accidents, suicide, murder by means of firearms, or prussic acid, and so forth; but rather do I want to deal with such medical and surgical conditions as may terminate suddenly in death. As instances of what I mean, I would mention an apoplectic seizure due to cerebral hæmorrhage, or a sudden hæmoptysis due to rupture of an aortic aneurysm into a bronchus.

Before entering upon the discussion of those gross lesions which may end in sudden death, however, I must draw your attention to a group of cases which is intermediate between those of accident, suicide, or murder on the one hand, and those of organic disease on the other, namely, death from such things as fright, for example, or the so-called "status lymphaticus." There is no doubt that fright may kill quite healthy individuals. There have recently been in this hospital two cases of adult persons who were about to undergo surgical operations, and who died of fright. In one case the anæsthetic had just been begun, and in the other even that stage had not been reached. The patient was being got ready for the operation, and simply died. In each case there had been great fearfulness for the result of the operation, and the dread had so worked upon the nervous system that the latter simply ceased to carry on the action of the lungs and heart. Such cases as these are rare, but very distressing. Therefore I would ask you to be very considerate of the feelings of patients who are to undergo operations, particularly women—both these patients were women. The cause of death is closely related to that from extreme fright. A post-mortem examination in these cases reveals nothing beyond the morbid condition for the relief of which the operation had been advised, such as fibroid of the uterus, or carcinoma of the breast.

Closely akin to the cases I have just been referring to are others in which I do not think fright plays a very obvious part, and yet, for some apparently inadequate cause, the patient dies. If I use the term "status lymphaticus" I think I shall bring to your minds the kind of case I mean. It occurs mostly in young people, children under the age of puberty, in whom it may be that an anæsthetic has been given for the performance of some minor operation such as circumcision. It may be that an operation has been performed on the tonsils without any anæsthetic at all, and the patient simply dies. Neither of these operations is an adequate cause of death. Post-mortem, these patients are found to have rather large thymus glands, and swollen lymphatic glands throughout the body—inguinal, bronchial, mesenteric, and so forth. You know how, at the root of the mesentery, that part furthest from the intestine, there are always visible lymphatic glands. As you go from the root of the mesentery out to where it is attached to the intestine, the glands become smaller, and they ought to be invisible in an ordinary sense when you get close to the intestine itself. But in the people who have died of the so-called "status lymphaticus," you will find even the smallest lymphatic glands close up against the intestinal wall quite visible, sometimes as big as small beans. Moreover, the tonsils, the Peyer's patches, and the solitary follicles of the intestine, and the vermiform appendix, in fact, all the lymphatic structures in the body, may be enlarged. That is all we can find wrong in these cases. You will note that I speak of the status lymphaticus as "so-called." This is because I am not positively certain that the condition is pathological. I was speaking to you about this last week when we were making a post-mortem examination upon a girl of eight, who had been run over by a motor car and killed instantly. She presented all the features of a case of so-called "status lymphaticus." She had a large thymus gland, and large visceral lymphatic glands. It is not often we do post-mortems on children who were apparently well a few minutes before death; and I would suggest that it is possibly normal for absolutely healthy children to have relatively large thymus glands, large lymphatic glands in the mesentery, and large Peyer's patches and solitary glands in the bowel. It may be that the serious illness that precedes the death of most of the children that we make post-mortem examinations upon, causes the lympathic tissues to shrink in such a way that we have come to regard the absence of the "status lymphaticus" as normal, whereas the exact contrary may be true. Upon the latter supposition, the sudden deaths of children from apparently inadequate causes might well be included amongst those of adults, due to fright, or prospective anæsthetics and operations. In any case we learn that we must beware of telling anybody in connection with

an operation that there is no risk in it whatever. Having cleared away the question of suicidal, homicidal, railway accident, and poisoning deaths, on the one hand, and such intermediate conditions as fright, and the status lymphaticus, on the other, I want to pass on to consider what you, no doubt, thought was the chief subject I should talk about to-day—obvious lesions in the bodies of people who may have died suddenly. Theoretically, you can divide these into two groups, namely: first, those cases in which no one had any knowledge whatever of the presence of any disease, the person being apparently in perfect health immediately before death; and secondly, cases in which there was a diagnosed disease, whose existence had possibly been known of for years, yet in which, in the end, death may have occurred quite suddenly. A man may have an aldermanic dinner, and fall forwards dead in the course of making a speech after it; he was apparently a healthy man in whom, nevertheless, there was a latent disease. On the other hand, a person may be suffering from aneurysm of the aorta which has been giving rise to symptoms for a long time, and one day it may rupture and cause sudden death. The distinction between these two types of cases is not merely theoretical; it is of practical importance, because, in the one class of case, the patient may be under treatment by a doctor, and the doctor may know what to expect, whilst in the other, no medical man may have seen the case during life, and an inquest may be necessary, as we were saying in the Forensic Medicine lecture this morning. Nevertheless, I do not propose to maintain the distinction here. I propose to take both classes of cases together, classifying them merely upon a pathological basis.

I think we can divide the causes of sudden death into the following main groups:—

The Main Causes of Sudden Death
(exclusive of murder, suicide, accident, and status lymphaticus).

1. Causes in connection with the Heart or with the Aorta.
   - (*a*) *Muscular.*
     - Fatty heart.
     - Fibroid heart.
     - Rupture of the heart.
   - (*b*) *Valvular.*
     - Aortic regurgitation.
     - Infective endocarditis.
   - (*c*) *Pericardial.*
     - Acute pericarditis.
     - Hæmopericardium.
     - Adherent pericardium.
   - (*d*) *Coronary Artery.*
     - Embolism.
   - (*e*) *Aorta.*
     - Rupture of aortic aneurysm:—
       - Into pericardium.
       - Into trachea.
       - Into bronchus.
       - Into lung.
       - Into œsophagus.
       - Into pleura.
       - Into mediastinum.
       - Into abdomen.
       - Externally into the pulmonary artery.
       - Into superior vena cava.
       - Into an auricle.

II. Causes in connection with the Brain.
- Ordinary cerebral hæmorrhage.
- Cerebral embolism.
- Cerebral embolism from infective endocarditis, followed by aneurysm on circle of Willis and secondary hæmorrhage.
- Hæmorrhage into a tumour.

III. Lung Conditions.
- Hæmoptysis from small pulmonary aneurysm in phthisical cavity.
- Pulmonary embolism.
- Very large pleuritic effusion.

IV. Laryngeal conditions.
- Diphtheria + stridor.
- Rupture of a quinsy.
- Foreign body.
- Acute suffocative œdema.
- Syphilitic abductor paralysis.

V. Addison's Disease.

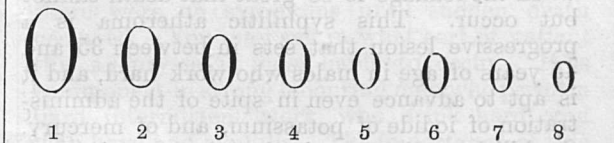
The first main group we will take is that in which there is something the matter with the heart or aorta. I am not going to confine myself rigidly, however, to the order in which I have written the above list. One of the first affections of the heart which will occur to you here is that which is called myocardial degeneration. Sometimes this is a fibrous degeneration of the myocardium, sometimes it is rather a fatty infiltration or a fatty degeneration. Perhaps fatty hearts are more liable to cause sudden death than are fibroid hearts. The heart change is demonstrated by making microscopical examinations of the muscles. I would have you remember that a fatty heart may cause sudden death soon after labour. It is a very distressing occurrence, for your patient is a woman who has passed through her labour normally, and all seems to be going well when she suddenly dies, and everyone begins to ask why this has

happened. Nobody was prepared for the catastrophe, very likely not even the medical man. I want you to realise that this disaster can occur as a result of a person having a fatty heart. In the volume of the Guy's Hospital Reports for the year 1873 there is a paper headed "Sudden death from syncope soon after labour," and I will read you an illustrative case. In November, 1870, a patient, aged 34, was attended in her ninth confinement in the Lying-in Charity of Guy's Hospital. Labour was tedious, the uterus acting feebly. There was a little oozing of blood before delivery, but after the child was born this soon stopped. As the woman appeared faint, one of the obstetric residents was sent for, and he gave her brandy with a little opium. The gentleman who attended her remained for a time, and then, as all seemed to be going well, he left. He was again sent for shortly afterwards, and on his arrival he found the patient dead.

It was difficult to ascertain the time of death, as there was no struggling. The husband and friends, who had been in the room the whole time, were not aware when death took place; they thought she had fallen into a deep sleep. The writer of the paper I have referred to ascertained from the husband that his wife, previously to her confinement, had suffered from palpitation of the heart and attacks of dyspnœa, and on that account was often obliged to stop whilst walking in the street and sit down on a doorstep. At the post-mortem examination next day it was found that there was much fat, especially in the abdominal wall; no coagulum in the heart's cavities or vessels; the lungs were healthy, the heart had the usual quantity of fat on its surface, but the muscular tissue was evidently the seat of fatty degeneration. The kidneys and all the other organs were healthy to the naked eye. It is very difficult to make sure of a diagnosis of fatty heart during life, but a catastrophe such as this reminds us of the necessity of treating rather carefully people who complain of attacks of dyspnœa, in consequence of which they are often obliged to stop when walking in the street.

Let us now consider aortic regurgitation. It is the most dangerous of all the individual valvular heart lesions, and it is the most likely to cause sudden death. This leads me to broach a question which you may say is in no way concerned with sudden death. It is so important, however, that I want to speak to you about it. It is this: we do not sufficiently practise in the wards the determination of the *amount* of a valvular lesion present in the particular case before us.

We are too apt, upon hearing the bruit, to label it aortic regurgitation, without making a really good attempt to measure the *degree* of the regurgitation, that is to say, to determine whether the volume of blood that leaks back is a small or a large proportion of that which the ventricle pumps up. In the post-mortem room, a fortnight ago, there were two consecutive cases of people over seventy who had had rheumatic fever when girls, and who had definite mitral stenosis. They had mitral valves which were, roughly speaking, two-thirds the size they ought to have been. That degree of stenosis does not very seriously hamper the circulation, but a greater contraction would have made itself felt many years earlier. We want words in this connection, which are comparable to paralysis and paresis, to represent different degrees of stenosis. Stenosis should represent an advanced degree, while there should be another term to indicate the lesser degree.



In the post-mortem room one sees every degree of stenosis of the mitral valve, as the above diagram may serve to indicate. All the above are diagnosed during life as "mitral stenosis." *Cæteris paribus*, however, the prognosis in any particular case is bound to be worse with mitral stenosis of degree "eight," than it is with mitral stenosis of degree "three," and so on. Similarly, there may be aortic regurgitation in which, for every ounce of blood which goes forward, there comes back a drachm, and with that the circulation goes on very well. On the other hand, there may be a condition in which, out of every eight drachms pumped out by the left ventricle, seven drachms leak back before the next systole, and that is a very serious thing. You have only to get a very little further and the circulation stops, because the whole of what the heart pumps into the aorta leaks back into the heart again. The patient is then bound to die. That is what happens in bad aortic reguritation.

There are two main varieties of aortic disease—the rheumatic and the syphilitic. Which of these has the worst prognosis from the point of view of sudden death? The syphilitic. If you will think a moment you will

see why this is. You may have a bad prognosis in rheumatic aortic regurgitation, but a rheumatic valvular lesion, whether aortic or mitral, is due to a fibrosis, to a scarring of those aortic valves. Suppose the patient has had acute rheumatism as a child, and that he is now thirty years of age. The amount of deformity of his aortic valves is the same now as it has been for years past. The scarring is the result of an inflammation which ceased years ago, supposing always that there has been no recurrence of the rheumatism. The heart will finally fail, simply because it cannot maintain its hypertrophy for ever, but the amount of aortic regurgitation will not increase. In a syphilitic case, on the other hand, the changes in the aortic valve are not the fibrotic scarring that results from an inflammation that has ceased; they are, on the contrary, due to atheroma, and this atheroma, having developed, is almost certain to progress. Syphilitic aortic regurgitation, therefore, increases as time goes on, and thus, no matter how much the heart may hypertrophy, there comes a time when the leakage is so great that death cannot but occur. This syphilitic atheroma is a progressive lesion that sets in between 35 and 45 years of age in males who work hard, and it is apt to advance even in spite of the administration of iodide of potassium, and of mercury. Syphilitic aortic regurgitation, therefore, is much more likely to cause sudden death than is aortic regurgitation due to a former rheumatic endocarditis, other things being equal. One must remember, however, that upon the top of what was a simple rheumatic endocarditis, followed by a scarring of the valve, there may develop an acute fungating endocarditis, which is accompanied by an ulcerating process that often eats a hole through the valve, and thus produces so sudden an increase in the degree of regurgitation that sudden death results. I need scarcely remind you that there may be a similar rupture of the valve when the disease is due to atheroma, as Dr. Lauriston Shaw has recently told you in his clinical lecture on that subject.

I have now to consider two much rarer conditions, namely, rupture of the heart and rupture of the aorta. They both come under one heading in a way, because they are both most liable to occur in syphilitic patients. Whereas you may know that an aortic regurgitation patient has heart disease, and he may be under your care for years before he suddenly dies, you cannot diagnose, as far as I am aware, the man who is going to have rupture of the heart, because that is a death which usually comes on in an apparently healthy person. It is the kind of case that is medico-legally important, because the disaster is likely to occur in a man who is engaged in some work, such as going up a ladder with a hod of bricks on his shoulder; the weak spot in the heart may rupture and the man may fall down and break his neck, the medico-legal question then being whether the condition of the heart caused him to die and then fall, or whether he died as the result of a fall. Rupture of the heart, when it occurs, always takes place at one spot, namely, in the region of the apex of the left ventricle. You will find in each case of ruptured heart that the wall is very much thinner at that spot than it ought to be, and you will find that it is fibrous there instead of muscular. These three specimens are all from cases of the kind, and they are all precisely similar to one another.

There may or may not be laminated blood clot adherent to the interior of the fibrous patch in the myocardium. The cause of the weak fibrous patch is always one or other of two things: either there is syphilitic endarteritis of the coronary arteries, so that the part near the apex which is supplied by their distal branches does not receive sufficient blood, and consequently undergoes a gradual atrophy from malnutrition; or there has been in the wall at that spot a gumma, which gumma, while it was there, displaced the heart muscle fibres, and which, when it healed, made a fibrous patch, just as a healed gumma will cause a fibrous scar in the liver or in the skin. As the result of some physical effort there suddenly occurs a rupture through this weak fibrous scar at the apex of the left ventricle. Death results almost instantly, because enough blood will get out into the pericardium to fill the latter with blood under considerable pressure; and if you get a bigger pressure outside the heart than there is inside the auricles, the circulation is bound to stop. Acute pericarditis may kill in the same way. If it gives rise to effusion, that need not necessarily be bad for the patient. But if that effusion takes place so quickly that the pericardial sac cannot bulge enough and make room for the effusion, then the fluid is under such great pressure that it squeezes the auricles, and the circulation ceases. When a heart ruptures, it is not the amount of blood lost which kills the patient, but rather the fact that the blood gets into the pericardium outside the auricles under a pressure that is greater than that within the auricles. I would ask you to look particularly at this specimen, labelled "aneurysm of the heart." The cardiac aneurysm is due to the bulging of the fibrous scar

before it bursts. If you look at the specimen carefully you will find that the wall of the left ventricle close to its apex has not only become very much thinner than it should be, but that it has bulged out into a saccular aneurysm. Please note how nature tried to save that heart from bursting. You will see inside it a laminated blood clot adherent to the fibrous patch; this clot, if it could have been given time to organise sufficiently, would have repaired the weak spot. The natural process of thus plastering up, or patching over, the thin place in the ventricular wall shows extremely well in this other specimen also.

The next cause of sudden death we will discuss is rupture of the aorta, or of an aortic aneurysm. Cases of aortic aneurysm may be classified in several different ways, but for our present purpose I should like to divide them into the following three groups, namely: first, those in which, previous to rupture, the existence of aneurysm was entirely unsuspected owing to there being neither symptoms nor physical signs of it; secondly, those in which the symptoms and signs have led to a correct diagnosis of aneurysm previous to death; and thirdly, those in which, although the aneurysm has given rise to symptoms and signs, the latter have been interpreted as due to something else than aneurysm; in other words, the diagnosis has been wrong. Should the aneurysm rupture, the occurrence is a complete surprise in groups one and three, though it would have been anticipated in group two.

I wish you to realise that aneurysms of the aorta are very variable in size. When they are as big as Tangerine oranges, or larger still, there may be a definite pulsatile tumour which cannot be mistaken; and besides this, the abnormal mass may compress different structures in the neighbourhood, and thus give rise to various pressure symptoms, such as those which result from obstruction to a bronchus or to the œsophagus, or to the trachea, or to interference with and degeneration of nerves such as the left recurrent laryngeal, the left cervical sympathetic, or the brachial plexus, so that, in addition to pain, there may be changes in the voice, inequality of the pupils, or atrophy of some of the muscles of the shoulder and upper arm. It is important to realise, however, that an aortic aneurysm may be so small that you may not know it is there. You may pass a man for life assurance one day and he may die next day from the rupture of an aneurysm that was entirely unsuspected. This is a case of sudden death in an apparently sound person, and therefore a much more striking occurrence than is the sudden ending there may be in a case of aneurysm that has already been diagnosed from symptoms or pressure signs. The commonest site for a small aneurysm of this kind is in the first part of the aorta immediately above the aortic valves, and before the innominate artery is given off. You will remember that the pericardium extends along the aorta for an inch or so above the level of the aortic valves. You will therefore realise that there is ample room for a bulge the size of a small walnut, or even larger, to develop upon that part of the aorta that lies within the pericardium, and for it to rupture into the pericardium. The case could not then be diagnosed from rupture of the heart itself, except upon post-mortem examination.

Death occurs abruptly, because the blood effused into the pericardium, outside the auricles, is under such pressure that the latter are unable to go on working. Every year cases of this kind are brought into the front surgery dead. Here is a specimen of rupture of a small aortic aneurysm; there were no symptoms until sudden death occurred. You may ask in what sort of patient this aneurysm is most liable to occur. It is commonest in strong labouring men who perform hard intermittent work, who drink hard, and who have had syphilis. The importance of this from the point of view of the Employers' Liability Act is obvious. Aneurysm may, of course, occur without there having been history or evidence of syphilis, but in any case of aortic aneurysm the chances are as much in favour of former syphilis as they are in cases of locomotor ataxy. Syphilis weakens the wall by the production of atheroma, identical in nature with the weakening of the valves that gives rise to syphilitic aortic regurgitation. Alcoholism accentuates this change, and intermittent hard manual work causes intermittent increases in blood pressure, which make the weakened vessel wall first of all bulge, and finally rupture.

Having briefly reviewed latent aneurysm as a cause of sudden death, I will now pass on to cases of aneurysm where the lesion has been diagnosed correctly long before death occurs. I need not spend much time on these. It is clear that if an aneurysm, known to exist, is bulging against the trachea, it may cause erosion of the inside of the latter, weakening the wall until, finally, there is a hole through it, and the patient suddenly brings up quarts of blood, and dies. It may similarly open into the œsophagus, the pleura, the mediastinum, the retroperitoneal tissues, and so on. Probably the rarest site of rupture

of an aortic aneurysm is externally through the skin. One instance of its doing so, however, is recorded by these wax models from our museum. Although the majority of aneurysms that rupture elsewhere than into the pericardium have produced symptoms or signs previous to their rupture, I must remind you that even here the bulge of the aorta may be small enough to have caused no obvious pressure effects, so that the rupture and sudden death occur unexpectedly. Tremendous hæmoptysis or terrific hæmatemesis may occur in this way in persons who have been enjoying what seemed to be perfect health.

I show you here a specimen in which you will see an aortic aneurysm which will barely admit the tip of my little finger; you see it is bulging against the trachea, just above the bifurcation. There is no real obstruction to the airway; and there were no symptoms at all until the patient had profuse, sudden, and fatal hæmoptysis. Sudden death may also occur when an aortic aneurysm opens into another vessel, such as the pulmonary artery, the superior vena cava, or into some portion of the heart, such as the right auricle. Specimens exemplifying each of these accidents I show you here.

As an example of the third group of cases, in which sudden death occurs in a patient who has had definite symptoms previously, but in whom some other diagnosis than aneurysm has been made, I will tell you of a mistake which I made when I was house-physician. It was so instructive a mistake that I learned much from it myself, and I hope you will learn from it, too. I want you to remember that there are aneurysms which do give rise to symptoms, but those symptoms, unless you are careful, you may attribute to another cause. The most difficult aneurysm of the aorta to diagnose is one on the descending thoracic aorta, which is beyond the recurrent laryngeal nerve, in the posterior mediastinum below the fifth dorsal vertebra. The only tubes it can obstruct there are the œsophagus and the left bronchus; as the œsophagus is mobile, it often gets away to one side and escapes obstruction. The aneurysm usually causes pain, because it is eroding the vertebræ, but the pain, being felt between the shoulders, is apt to be discounted on account of the commonness with which dyspepsia causes similar pain under the left scapula or between the shoulders. With aneurysm, however, it is a very constant pain, and it is usually associated with a decided tenderness on palpation at some particular spot on the left side behind, thus differing from the pain of dyspepsia. It is also important to remember that an aneurysm in the descending aorta is almost certain to obstruct the lower divisions of the bronchus on the left side. The physical signs you get from this are impairment of the percussion note over the lower lobe of the left lung, with deficiency of the vesicular murmur in the same region, with or without a few crackling râles. All the abnormal physical signs point to something being wrong in the left lower lobe, and they simulate the signs of thickened pleura with fibrosis of the lung or something of that sort; indeed, the obstruction to the bronchus by the aneurysm actually does cause fibrosis of the affected lobe, with signs precisely similar to those that would result from a pleuritic effusion that had been slow to clear up. Moreover, long before the aneurysm ruptures there is irritation of the stenosed bronchus, and the sputum may become streaked or stained with blood. Picture to yourselves, therefore, a man who complains of pain in the left side of his chest, who has foul purulent sputum streaked with blood, who is thin, has slight pyrexia, who is losing weight, and who has an impaired note with deficient vesicular murmur all over the left lung, and a few crackling râles to be heard here and there, and you will see that you might easily diagnose the case as phthisis, as I did. The sputum was examined for tubercle bacilli, and it was reported that in addition to many pyogenic cocci, a single acid-fast bacillus had been seen. The patient I am speaking about was in 35 bed, Stephen ward, and on the diagnosis of chronic phthisis he was allowed to get up three or four days before Christmas to assist in decorating the ward with ivy and holly. His excitement increased his blood-pressure sufficiently to burst his undiagnosed aortic aneurysm, and he suddenly died. The flood of blood that came from his mouth and nose so terrified everyone in the ward that the Christmas festivities were changed to gloom. So remember, therefore, the importance of accurately accounting for a localised pain in the back, with physical signs suggesting partial obstruction to the left lower bronchus.

I have only one or two more observations to make about cardiac cases. In the museum we have an example of a very exceptional form of cardiac rupture—namely, rupture of the auricle. We must bear in mind particularly that rupture of the heart generally takes place at one spot—*i.e.*, the apex of the left ventricle. A rupture of the auricle is a very exceptional case. Another interesting specimen from the Museum, rarer even than rupture of the auricle, is a perforation of the aorta by a fish-bone. The case may remind you of a scene in a certain novel in

which one person is represented as stabbing another, the end of the dagger protruding into the aorta. The novelist called in an imaginary medical man, who recommended dilute hydrochloric acid by the mouth to dissolve away the end of the dagger. The treatment was carried out, and the patient got quite well. The specimen I have just mentioned is that of a thoracic aorta laid open to show upon its posterior surface a ragged laceration. On the reverse of the specimen the œsophagus exhibits a deep ulcer, while below is mounted the fish-bone which was the cause of the trouble. The patient, aged 22, was a trooper in the 2nd Life Guards, who died five days after swallowing what he thought was a piece of gristle with his food. He first complained of indigestion and a feeling of heaviness in the chest, and on the symptoms becoming worse he was admitted into the hospital. A day or two after admission, while leaning over and talking to another patient, he suddenly brought up quarts of arterial blood and died. This may fitly come into the category of sudden deaths in the apparently sound, as the symptoms were not thought to be serious.

(To be continued.)

Preparations Received.

Condensed Soups.

We have received from the JOSEPH CAMPBELL COMPANY, of Camden, New Jersey, and 6 & 8, Bouverie Street, E.C., samples of a variety of condensed soups prepared by them.

These soups, which are put up in tins, are of semi-solid consistency, and are readily prepared for use by the addition of boiling water, and the subsequent boiling of the whole. In this way a soup of delicious flavour and distinctly nutritive value is readily and rapidly prepared, and the advantages of such preparations for the use of invalids are obvious, for as an accompanying booklet expressively puts it:—"You can gratify in a jiffy some quick whim in the sick-room." A large number of varieties are advertised, from the familiar ox-tail and mock turtle to "chicken gumbo" and "clam chowder."

Prevention of Infantile Diarrhoea.

Messrs. R. SUMNER & Co., of Liverpool, have sent us a specimen of their covers for milk and other infants' food, which are designed to prevent contamination of these articles by house-flies.

This very useful cover is an old friend in a modified form, and we have nothing but praise for so useful an article, especially as it is so easily sterilized and kept clean. The leaden weights attached to the corners are a very useful addition and a great improvement on the old-fashioned glass beads formerly in use.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Pathological Horrors.

SIR,—May I be permitted to offer a suggestion with regard to the annual Garden Party?—namely, that the pathological specimens in the museum be covered up another year, as the sight of them is both distressing and unsuitable for the lay person. The anatomical specimens are of such great interest that it would be a pity to close the museum to visitors, but personally I felt that the unexpected sight of such pathological horrors went far towards spoiling an otherwise admirably managed and enjoyable afternoon.—Yours,

A DOCTOR'S WIFE.

[N.B.—We refer to this subject in "Passim."—ED.]

Pass List.

University of Cambridge, June, 1909.

DEGREES CONFERRED.

DEGREE OF DOCTOR IN SCIENCE.

H. E. Durham (King's).

DEGREES OF M.B., B.C.

H. B. Carlyll (St. John's).

DEGREE OF B.C.

C. F. Searle.

Second Conjoint Examination, July, 1909.

A. C. d'Arifat.
C. A. R. Gatley.
H. J. Hoby.
J. M. Joly.
G. B. H. Jones.
V. A. Lunn.
L. M. J. Menagé.
F. Tooth.

Change of Address.

Allan, Douglas, M.R.C.S., L.R.C.P. Lond., from Guy's Hospital to the General Infirmary, Sunderland.

McGregor, George, M.R.C.S., L.R.C.P. Lond., from Verona, New Road, Portsmouth, to Leafmore, Hill Brow, East Liss, Hants.

Messer, Julian, L.D.S., from 3, Grange Terrace, Sunderland, to Bank Chambers, 4, Princes Street, Harrogate.

Moll, O. C. H. L., L.M.S.S.A., from West Studdal, near Dover, to 46, Leytonstone Road, Stratford, E.

Robinson, W. E., M.D., B.Ch. Oxon., L.R.C.P. Lond., M.R.C.S., from The White House, Sonning, Berks, to Sedgehill, Redlands Road, Reading.

Guy's Operatic Society.

THE first public appearance of this society as a "going concern" was made at an excellent concert held on Tuesday, July 13th, at the Æolian Hall. We take this opportunity of welcoming the new institution which has sprung up in our midst, and of wishing it the large measure of success which its efforts, judging from the concert, deserve. The society was born under a lucky star. It is singularly fortunate in its President, Sir Alfred Fripp, who is so popular among his friends in two professions; in its Hon. Secretary and Treasurer and Chorus Manager, Mr. L. C. Dundas Irvine, whose energy and enthusiasm are undaunted; and in the very considerable amount of vocal talent which is available at the hospital.

Though not completely filled, the Æolian Hall presented an animated appearance on the occasion of the society's first concert. Among the audience we noticed Mr. C. R. G. Hoare, representing the Governors, Mr. Norman Salmond, Mr. Wertheimer, the Matron, and many members of the staff, including, we were glad to see, Dr. Pavy, who, in spite of his eighty years, takes such a living interest in the hospital and the institutions connected with it.

The fact that the society is founded for the performance of light opera was definitely indicated on the programme. Some ten items were from the Gilbert and Sullivan operas, or music of a kindred quality. How delightful that quality is! One of the daily papers, referring to the Guy's concert, remarked on the great possibilities lying in Gilbert and Sullivan's operas for amateurs, of which, however, advantage was too seldom taken. Our Operatic Society has been well advised in drawing on this great fund of melody and harmony, wedded to the inimitable words of W. S. Gilbert.

The following items from the Gilbert and Sullivan operas were given:—"The Policeman's Chorus" (*Pirates of Penzance*); trio, "I am so proud" (*Mikado*), by Messrs. Peall, Irvine and Price; trio, "A man who would woo a fair maid" (*Yeomen of the Guard*), by Miss Oram, Miss Dresser and Mr. Peall; solo with chorus, "The Captain's Song" (*H.M.S. Pinafore*), by Mr. Irvine; solo with chorus, "Roses White" (*Gondoliers*), by Miss Moore; trio, "Faint heart never won fair lady" (*Iolanthe*), by Messrs. Buck, Kidd and Bates; the Madrigal from *The Mikado*, by Miss Oram, Miss Moore, Mr. Buck and Mr. Irvine; and the irresistible quartette, "The Regular Royal Queen" (*Gondoliers*), by Miss Oram, Miss Dresser, Mr. Peall and Mr. Oram. In addition, the quartette, "When the budding bloom of May," by Edward German, was sung by the Misses Buck, Mr. Buck, and Mr. Irvine.

The soloists were almost uniformly excellent. Miss Katharine Moore's singing of "As Bess one day" (Liza Lehmann) was particularly pleasing. Miss Ruby Wertheimer's well-trained voice and good enunciation did full justice to her two songs, both of which were encored. Miss Louie Pounds sang about the young lady from "The Belle of Mayfair," who never did a wrong thing because she never got the chance. Miss Janet Oram sang "Love is meant to make us glad" (Edward German). Mr. R. Joseph gained great applause for his fine voice, which especially suited "Glorious Devon." Mr. Peall sang the ever-charming "Passing by," and "To Myrrha" (Lohr). Mr. Chapple's beautifully produced baritone voice was heard in three delightful songs:—"To Phyllida" (Teresa del Riego), "Little Boy Blue," and "Maire, my Girl" (Aitken). Mr. K. L. Bates sang "Merry Maiden Spring!" (MacDowell). Mr. Irvine, besides his solo from *Pinafore*, sang two songs by Vaughan-Williams—"The Vagabond's Song" and "The Roadside Fire," and Mr. W. Gunning Buck sang William Wallace's stirring song, "Son of Mine."

This mine of good things in the vocal line was enriched by the recitations of three famous members of the profession, which is always so generous in assisting the hospitals by personal efforts. The easy charm of Miss Rosina Filippi's three recitations was such as could only be attained by great experience added to natural talent, and was accordingly much applauded. Mr. Henry Ainley was equally successful in "Gentlemen Rankers," and as an encore, in "Like as Mother used to Make," by James Whitcomb Riley. Mr. Rutland Barrington, whom, as an old Savoyard, it was specially interesting to see there, told some stories and sang a delightful coon song.

Finally, it goes without saying that Mr. Lewis Waller, who arrived at a somewhat late hour after his labours in "Fires of Fate," met with a great reception from those members of the audience who had not been obliged to leave early in order to catch trains, etc. Mr. Waller's very dramatic recitation was received with marked approval.

We should like here to express our thanks to Mr. Lewis Waller and the other talented ladies and gentlemen who so kindly gave their services, and helped to make the concert the success it undoubtedly was.

Among others who deserve a special tribute in this connection we should mention Mr. H. T. Depree, who is a quite exceptionally reliable accompanist, and in acting in this capacity throughout the concert rendered a great service to the society; and Mr. Wingent, who designed a clever cover for the programme.

The following is the list of ladies and gentlemen in the chorus:—Misses Eyleen Buck, Vera Buck, Adelaide Dresser, Ethel James, Katharine M. Moore, Janet Oram, Joyce Sayer, Muriel Thomson; Messrs. M. E. Ball, K. L. Bates, W. G. Blake, W. Gunning-Buck, H. Gardiner, W. S. Kidd, D. A. Mitchell, R. G. Oram, G. H. Peall, P. Pedrick, P. S. Price.

Some Points in Connection with the Temporary Teeth.

DENTAL CLINICAL LECTURE,

By MR. J. B. PARFITT.

GENTLEMEN,—I have from time to time been asked, "Is it necessary to fill children's first teeth?" And I expect it will be many years before that question has been asked for the last time. Fortunately parents are showing an increasing interest in the care of their children's teeth, and it is certainly our duty, as dentists, to lose no opportunity of educating them in this matter, and especially must we be able to give them a clear and well-reasoned reply to all such questions. To do so satisfactorily we must ourselves have a very clear idea of the influence of the temporary teeth on the child's present and future well-being.

A defective condition of the temporary teeth brings in its train many evils, especially pain, septic infection, and loss of masticating power. The presence of a single tender tooth will cause a child to bolt his food; the other teeth, from loss of function, get foul, and probably carious, thus completing the vicious circle, and leading to irregularity and caries of the permanent set.

The narrowing and caving in of the arch is further helped by lack of development of the tongue, due to its partial disuse. The septic condition of the mouth, combined with food bolting, will, in a young child, often bring on an intractable kind of indigestion, with chronic pain, intestinal disturbances, and perhaps an upset of the nervous system as well. This food bolting and digestive disorder may quickly become fixed as habits, and lay a sure foundation for mischief that may persist through life.

It has been conclusively shown by Mr. Turner that imperfect development, or even such a gross deformity as dilaceration of a permanent tooth, is not infrequently caused by an abscess arising from a temporary predecessor.

I have said enough on the importance of the deciduous teeth, and will pass on to the question of their preservation. Two problems present themselves to us—the treatment of the child, and the treatment of his teeth.

As in the case of adults, it is impossible to get much satisfactory conservative work done without some co-operation on the part of the patient, but children are so different in feelings and actions from their elders that their treatment is an altogether different kind of task.

Having little experience of dentistry, good or bad, children do not as a rule meet trouble half-way, so we do not get that minor insanity that some grown-ups refer to as their "nerves."

One great aim we must keep continually before us will be to avoid giving the child any terrifying experience that will upset him for the future; many a child is spoilt for years by some rough dentist who most likely says he has no time to fuss, tells the child he is not going to hurt, and then perhaps holds his jaw in a vice-like grasp and extracts several teeth. Not only is subsequent treatment made very difficult for such a child, but, unless his parents are firm, he will not go near a dentist for years, and perhaps grow up with a wrecked set of teeth.

Children, unless spoilt, will generally believe what you tell them, so on no account must they be deceived, or good-bye to your influence over them. If any really painful operation has to be done, a child should have an anæsthetic; in fact, it is more important for him than for an adult.

It is often well to do very little at the first visit; the child finds out that you are not so dreadful a person as he thought, and next time will let you do pretty much what you will. Sometimes several visits have to be paid before this desirable understanding is arrived at.

Children have lively imaginations and great curiosity, and my experience has been that many, if not most of them, look upon a visit to the dentist as a sort of amusement. They notice, and ask questions about everything; "How do you make the engine go?" "Where does the water in the fountain bowl come from?"

The water syringe is great fun, and mixing cement and sharpening instruments most interesting performances.

It is in the intervals between these various happenings that we get spells of opening the mouth and having excavating or filling done. Children are easily tired, and cannot be expected to exercise much self-control; hence the visits should be short, say not much more than a quarter of an hour.

All that can be said on the subject of treatment of adults, with reference to gentleness, avoidance of pain by use of sharp instruments, or other means, applies to children ten-fold. Children respond easily to suggestion, and you will always find that after you have made a good beginning with the eldest of a family, the others will take it all very much as a matter of course. Like their elders, they appreciate praise, and if they have tried to help you, a little commendation and a good report to the mother, if she is with them, will greatly help matters in the next visit.

We may turn now to the consideration of the treatment of the temporary teeth. Far more important than the cure of caries is its prevention.

Unfortunately, the statistics now being gathered in show a truly terrible condition of the teeth of children in the elementary schools, and the fact compels us to admit that we have hardly even begun to solve this problem. Immunity from caries is still largely a matter of mystery, but we have every hope that it will not remain so for ever, perhaps not for long.

The condition of the general health can hardly fail to have an important influence on the incidence of caries, although in individual cases it is often difficult to trace the exact connection. At times, however, an attack of caries may reasonably be considered the result of some special illness.

One little girl, whose teeth I have seen from time to time, was quite free from decay until she was about three years old. She had then an illness, said to be influenza, which lasted about a fortnight. Part of the time her mouth was inflamed and ulcerated. After a few weeks small cavities began to be discovered in the molar teeth; these were filled, to the number of seven or eight. The last of the crop was filled a few weeks after the first was discovered, and from that time the child was immune for several years.

Bottle-fed babies are generally supposed to be at a disadvantage compared with those fed naturally, but unfortunately natural feeding does not necessarily result in the child having a good set of teeth. I know of two little boys, first cousins, and both breast-fed; one of them has very good teeth, while the other's decayed very soon after they erupted.

Dr. Sun Wallace has made some very interesting observations on the decay of children's teeth. Put very briefly, his conclusions are that immunity from decay varies with the exercise of the functions of mastication. As he well points out, vigorous mastication of food worthy of the effort will both cleanse the teeth mechanically and promote a great flow of saliva, thus further cleansing them both at the time of eating and for some while afterwards. Together with other valuable advice, Dr. Wallace recommends that children should at no time be fed on soft "pappy" food; directly they begin to eat solids at all, they should have hard things, such as crusts and toast, and soft, smooth and stodgy food should be avoided. A child so fed will, he says, masticate his food rather than bolt it, and will have little taste for sugar and sweet things.

Meals should not be too frequent, and the last thing eaten at a meal should be something that requires a good deal of mastication, and has a flavour likely to cause a vigorous flow of saliva; a hard apple seems to answer the purpose very well. Dr. Wallace's conclusions seem so reasonable that one feels that there must be some truth in them, and it is noteworthy that in the case of some children whose feeding he has been able to direct, most encouraging results have followed from the observance of these simple rules.

If we find a child's teeth decayed, the first thing to be decided is, shall they all be saved, or must any of them be extracted.

For the sake of the regularity of the second teeth, we wish to retain those of the temporary set until the normal time for losing them.

Our immediate concern is, however, the child's health, and unless a tooth can be made both comfortable and free from septic trouble, I certainly think it ought to be extracted without delay. Especially should extraction be resorted to if there is any sign of gland enlargement, any otherwise incurable abscess or ulcer, or if it is loose and tender, and near its normal time for being lost.

Again, if the patient is a nervous weakly child, suffering from pain and loss of sleep, extraction should be preferred, unless the trouble can be cured at once by conservative treatment. Fortunately this can often be done. I heard a dentist say, the other day, that it is very easy to stop a child's pain, but quite the reverse to stop his teeth. The difficulty is due partly to the fact that the patient is a child, with all a child's psychological peculiarities, but is also in no small measure caused by the smallness of his teeth and the relatively great size of their pulps, which, moreover, readily die from small degrees of irritation. Fortunately for all concerned, the temporary teeth are as a rule far less painful than the permanent ones. I have, more than once, heard children say they liked having the engine used, and have even at times known them feel little or no pain from touching an exposed pulp. On the other hand, they seem to object to any pressure on the teeth, such as would be exerted by using an enamel chisel at all vigorously. And above all things they object to a nasty taste. We ourselves are a little liable to forget how nasty most of our favourite drugs are. Anyone who smears a little clove oil on the tip of his tongue will soon understand what I mean, and some of the other things in common use are worse than clove oil.

If a child is fairly docile we should always aim at doing what may reasonably be called permanent work.

Cavity preparation is sometimes a trying performance for the operator, as some children will only keep their mouths properly open for a few seconds at a time. If progress is to be made, every stroke must accomplish some definite object. To do this, tools must be in good condition, burs should be quite new, and excavators as sharp as stones can make them; the intervals of rest are often best employed in retouching the instrument edges for the next stroke.

If the teeth happen to be painful to excavate, a temporary filling, composed of zinc oxide and zinc sulphate, with two or three per cent. of paraform, will greatly help, and will generally make it easy to complete the filling at the next visit. I think the ideal fillings for temporary teeth are translucent cement for the front of the mouth, and amalgam lined with cement for the back.

Filling with translucent cement will present little difficulty; the cavities are generally of retentive shape when the decay is removed, and they can be kept dry long enough to get the cement packed and varnished. The molar teeth are more difficult both to get at and to keep dry. A rubber dam is generally out of the question, and a saliva tube often more nuisance than assistance.

In the case of interstitial cavities, oozing from the gum may be largely prevented by application of adrenalin solution on wool. The actual filling is accomplished by working with one hand, leaving the other at liberty to hold a wool roll down on each side of the tooth to be filled. The instruments must, of course, be all placed in readiness, and the amalgam and cement mixed before placing the rolls in position. The cavity can then be rapidly dried and the filling placed before the rising flood of saliva reaches it. If the child is too young, or too easily tired for you even to accomplish this much, do not scruple to temporize until something better can be done. In very young children copper amalgam often

does good service, especially in crown fissure cavities. It will hold in and preserve the tooth to quite a surprising extent, even when a minimum of excavation has been possible, and the filling has been made in a wet cavity. Another excellent material to temporize with is the pink-base plate gutta-percha.

If it is impossible to get satisfactory preparation done for adjoining interstitial cavities in molars, it will be found that although each by itself is non-retentive, they will easily hold a plug of gutta-percha between them. The teeth can by this means be kept going for months, or until proper fillings can be made. A temporary filling that I find quite invaluable is made by mixing the zinc oxide and zinc sulphate powder with carbolized resin, and then thoroughly incorporating the paste with some fibres of cotton wool. The plug so made, if about the consistency of plasticine, can be made to stay in almost any cavity, wet or dry. It can be pressed into place and moulded to shape with a wad of wet cotton wool, and after a few hours sets into a hard tough mass, which, if the cavity is at all retentive, will withstand the force of mastication for a considerable time; in fact, it seems to get harder the longer it remains in place. The carbolized resin in it gives it all the antiseptic and anodyne qualities of a carbolic dressing. Exposed pulps sometimes prove troublesome. Personally, I feel rather chary of applying arsenic to them for fear of setting up trouble in the soft tissues round the root; if it is used at all, it should be removed in one, or perhaps two days' time.

A very simple way of dealing with an exposed pulp is to break up the coronal part of it with a bur while the child is under gas. Septic pulps are easily treated unless there is any considerable inflammation, in which case, of course, it is better to extract the tooth. When there is only a mild degree of trouble, opening of the pulp cavity, well syringing it with water or weak peroxide of hydrogen, and sealing in an antiseptic dressing, will work a rapid cure.

Tricresol and formalin is an excellent material for a dressing; so is cinnamon oil with a little paraform rubbed up in it. If a plug of wool, soaked with either of these fluids, is placed in the pulp chamber and sealed in with some easily-removable watertight filling, the inflammation will rapidly disappear and the tooth become firm and comfortable. At the next visit the roots can be filled with an antiseptic paste made by mixing the zinc oxide and zinc sulphate powder with clove oil or cinnamon oil, with or without 3 per cent. of paraform. It is best to give the root filling a few days' trial; if the tooth still remains in a satisfactory condition the permanent filling may be inserted.

Finally, I would mention that the temporary teeth vary very much in value. The canine and the second molar are much more valuable than any other single teeth because they are retained such a long time in company with members of the permanent set; if decayed, these teeth may easily spoil their permanent neighbours, and so start caries of the second set.

Reviews, etc.

The price of books submitted for review should in every case be stated.

Infant Feeding. By J. S. Fowler, M.D., F.R.C.P. Edin., Physician to the Royal Hospital for Children, Edinburgh, and Joint Lecturer on Diseases of Children, University of Edinburgh. (Oxford Manuals of Medicine, Hodder & Stoughton.) Price 5s. net.

In this book on infant feeding, Dr. Fowler deals with the subject very thoroughly indeed, both from a practical and also from a theoretical standpoint. He also points out very clearly the advantages of having a competent nurse, who has special knowledge, to carry out the medical instructions. A most valuable and useful appendix is added, in which are included various extremely useful recipes, together with a clear description of the various forms of sterilization at present in use. The construction of a weight chart is clearly shown and enlarged upon. In looking for a fault in this very valuable work it seems to us that insufficient emphasis is laid on the fact that the only satisfactory infants' food is normal mother's milk. But in the unfortunate event of substitutes having to be resorted to, we can confidently recommend this work to the profession as being thoroughly up to date and well worth the addition to any medical library.

Papers, etc., Received.

The British Health Review. (21, Paternoster Square.) Price 3d.

This paper, which has now reached its fourth number, is evidently designed for that large and increasing class of people which takes an amateur interest in medical matters, especially in matters connected with "food reform." In the copy before us, one of these enthusiasts writes as follows in the correspondence pages:—"Do please explain what are purins in food. I read the allusions and do not understand what is meant, and no doubt many others are in the same case. Are the purins like the proteids, fats, and so on, that are so much written about, and if so, how can they be avoided? Please reply quickly to this." We hope this eager correspondent will be the happier for learning what purins are; but we hope it will not make her daily dinner an occasion for anxious thought and much searching of soul. The greater part of the paper is occupied with the subject of food reform, in the sense of limiting the consumption of meat and increasing that of vegetables. A prize is offered for the best reply to these objections to food reform urged by a physician:—"Have not the governing classes of the world always been meat-eaters? Are cereal-eating nations ever first-class Powers? Does cereal-eating diminish the reproductive power of the species?" The physician thus

obsessed by the craven qualities of the cereal-eater adds:—"I believe that if England becomes a cereal-eating country it will also become a German colony." The triumph of sausages over cereals is too appalling a thought!

Mrs. Sidney Webb deals with the Report of the Poor Law Commission from the point of view of the public health, in an able article; the Hon. Rollo Russell writes on his views regarding "Cancer and Diet," which he embodied in a book reviewed some time ago in these columns; "M.D." writes sensibly on "The Man of Sixty who has 'lived well'"—a personage we all know; Mrs. Hodgkinson has some trenchant remarks to make on the "Causes of the Decline in the Birth-rate."

The British Health Review will do a valuable work if it teaches people to be rational in their diet, but it must take care not to turn them into food-cranks and faddists. "Avoid extremes" is our advice on diet in a nutshell. Being in a nutshell, it ought to appeal to food reformers.

The rapid success which attended the publication of Dr. T. D. Savill's "System of Clinical Medicine" has rendered a second edition necessary, and the author has taken advantage of this to correct and revise the whole work throughout. The new edition will be in one volume, and will be issued by Mr. Edward Arnold about September 1st.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; Nursing Times; Manchester Medical Students' Gazette; Middlesex Hospital Journal; South African Medical Record; My Journal; St. George's Hospital Gazette; British Health Review.

Appointments.

Civil.

GLENN, C. H., M.B., B.C. Camb., is appointed Certifying Factory Surgeon for Hayward's Heath District, County Sussex.

Naval and Military.

Surgeon F. R. FEATHERSTONE, R.N., has been appointed to the *Pembroke*, for disposal, and Surgeon A. T. RIVERS, R.N., to the *Terrible* for the *Flora*, on recommissioning.

Lieutenant G. E. MALCOMSON, M.D., and P. S. MILLS, M.B., Indian Medical Service, are promoted to the rank of Captain.

University of Cambridge, June, 1909.

The following have been appointed Examiners for the Third M.B., Part II. :—

Medicine.—Dr. FREDERICK TAYLOR, Dr. NEWTON PITT.
Surgery.—L. A. DUNN, M.S.

Sport.

Water Polo.

GUY'S v. LONDON.

The semi-final for the inter-hospitals water polo cup was decided on Tuesday, July 20th, at the Aldgate Baths. Guy's immediately proved aggressive, and at half-time were leading by four goals to one. The second half was more even, the final score being 7–2. Of our goals, York Moore shot six, and Glover one. York Moore played brilliantly at forward, and Rice was very safe at back. St. Mary's scratched to Guy's. We are, therefore, once more holders of the water polo cup.

Papers by Guy's Men.

John W. H. Eyre, M.D., and Bernard H. Stewart, M.A., M.B., B.C.: The Treatment of Gonococcus Infections by Vaccines.—*The Lancet*, 10th July, 1909.

Herbert S. French, M.A., M.D. Oxon., F.R.C.P. Lond.: On Spontaneous Cure of Thoracic Aneurysm.—*The Lancet*, 10th July, 1909.

C. E. Iredell, M.D. Lond., M.R.C.P. Lond.: Notes on the use of X-rays in the Treatment of Malignant Disease (illustrated).—*The Lancet*, 17th July, 1909.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

Marriages.

BERRY—WEST.—On July 6th, at St. Andrew's Church, Fulham, W., Thomas Percival Berry, M.D. Lond., to Florence Eveline West, eldest daughter of Mr. and Mrs. A. T. West.

COLE—TEMPLEMAN.—On July 20th, at St. John's Church, Weymouth, by the Rev. B. C. Pownall, M.A., assisted by the Rev. Henry Hawkins, M.A., Percival Pasley Cole, M.B., B.Ch., F.R.C.S., Subwarden of Queen's College, Birmingham, to Amy Gladys, younger daughter of T. J. Templeman, Esq., J.P., of Stanton Court, Weymouth.

Death.

WILMOT.—On June 21st, at Burnham House, Burnham, Bucks, Alfred Edward Wilmot, J.P., M.R.C.S. Eng., L.R.C.P. Lond., in his 67th year.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Passim.

THE first annual camp of the University of London contingent of the Officers' Training Corps is now being held at West Down, North Camp, Salisbury Plain, having started on July 30th and continuing until Friday next, August 13th. The Principal of the University, with members of the Senate and Military Education Committee, and others interested, visited the camp on Sunday last. The Guy's contingent, over thirty in number, commanded by Captain Davies-Colley and Lieutenant Layton, went down to the camp on July 30th, and tent-parties of seven, each including a non-commissioned officer, were arranged. We hope to publish some personal experiences of the camp by one of our party.

THE Handbook recently issued in connection with the London University contingent of the Corps contains, in addition to rules, regulations, syllabuses for the certificate examinations and other information, a list of the members of the three units at present comprised in the contingent—Engineers, Infantry, and Medical. The list of the last-named unit is of interest to our readers, inasmuch as Guy's heads the list in point of numbers among the Medical Schools of London. We are represented by 56 members, who, with 18 members at St. Thomas', make up "B" Section; University College and Hospital are second with 53 members, and St. Bartholomew's and Middlesex next in order, with 40 and 30 members respectively. It may be noted that our members of the Corps are mostly junior men at the hospital, and this, no doubt, is inevitable, as appointments in the wards do not leave much opportunity for military duties, but we have heard of at least one patriotic surgeon who offers to allow his dressers a three weeks' holiday, provided a fortnight of it is spent in camp for the benefit of the country.

THE following awards of blues and half blues have been made by the Blues Committee for the summer season:—Cricket: Full blues to W. E. Fox (1907), G. Andrew, C. E. Rice, F. C. Hunôt, F. D. Saner, W. C. Miller; half blues to E. J. Rhys Evans and B. F. Sampson. Lawn Tennis: Full blues to H. Sharpe, A. S. Roe, R. Curle, G. H. Hunt and G. C. Covell; half

blues to W. J. S. Griffiths, L. Price Harris, and R. H. Lucas. Athletics: Full blues to H. W. Evans, A. L. Stokes, H. Mather, G. D. Eccles, W. R. Fry, H. F. Renton, and W. W. Cook; half blues to B. F. Sampson, H. Reader, R. G. Oram, and A. B. Danby. Swimming: Half blues to J. York Moore and A. Wills. Shooting: Half blues to H. Platts, E. O. Yerbury, and W. Robinson. We offer our hearty congratulations to all whose prowess the Committee has thus suitably rewarded.

The final match in the Inter-Hospital Lawn Tennis Cup Ties should have been played between Guy's and St. Thomas' on June 29th, but on that date it had to be abandoned, and a succession of unfortunate circumstances, such as the prevailing summer weather, the absence of players, etc., has led to its repeated postponement, so that it still remains unplayed. It is much to be regretted that this is so, as the negotiations towards a settlement of the situation seem to have reached a deadlock. Guy's, being holders of the Cup, are naturally averse to abandoning it without a fight; St. Thomas' also naturally do not wish to lose their chance, and a joint holdership of the Cup is an extremely unsatisfactory, as well as unjust, arrangement.

It has been suggested to us that a golf match, Staff *v.* Students, should be instituted as an annual affair. Such a match is held at St. Thomas', at the London, and, we believe, at several other hospitals; and, as there are many golf enthusiasts among us, both qualified and unqualified, we offer the suggestion to them for what it is worth. Such matches must add to the gaiety of hospitals. The objection that it would not be well for students to hear the Staff "let themselves go" verbally on the golf-course has no weight, for have we not heard them in the operating theatre?

Dr. Frederick Taylor has been elected Chairman of the Committee of Medical Members of the Senate of the University of London.

Further evidence of what we have called the vulgarly sensational methods of anti-vivisectionists is afforded by a suggestion of one of the speakers—a Madame Paula Mondra—at the "Fourth Triennial International Congress of the World's League for the Protection of Animals." This lady is said to have proposed that vivisection should be combated by means of public lectures, with cinematograph demonstrations of experiments on living animals! An excellent device, you see, to attract the sympathies of sensation-lovers. The difficulty which presents itself to our mind is the means of obtaining such pictures. It is not conceivable that a physiologist would permit his work to be turned into a source of entertainment for the brutish tastes of the public, neither is it likely that the anti-vivisectionists themselves would undertake the necessary experiment; but, no doubt, they might be able to devise a very telling sham experiment, surrounded by a wealth of imaginary gruesome detail such as they attached to Dr. Waller's now famous bulldog at the Royal Society's Conversazione.

We have received a note from a reader who says that he remembers hearing the anecdote which we published in our last issue, with a slight variation, 25 years ago. In his version, one of the patient's eyes goes to sleep at night, and the other remains awake looking for mice. We hope the following is not an equally wrinkled chestnut; it is at any rate new to us. A woman, explaining her little boy's symptoms to a neighbour, remarked in a tragic voice, "Yes, 'e's awful bad. In fact, the doctor says 'e's got *youth on his side.*"

Some old doggerel verses, entitled "The Doctor and his Apprentice," which are reprinted in a recent issue of *The Pharmaceutical Journal*, are a quaint reminder of an older day, though some of the sentiments expressed seem to support a pet theory of our own—that, in spite of great external changes, things were not very different 50 years ago to what they are to-day :—

"A pupil of the Æsculapian school
Was just prepared to quit his master's rule.
Not that he knew his trade, as it appears,
But that he then had learnt it seven years.

"Yet think not that in knowledge he was cheated.
All that he had to study still
Was—when a man was well or ill,
And how, if sick, he should be treated.

* * * * *

"The master-doctor solemnly perused
His victim's face, and o'er his symptoms mused ;
Looked wise, said nothing—an unerring way
When people nothing have to say—
Then felt his pulse and smelt his cane,
Then paused, and blinked, and smelt again."

When an old Guy's man dies, it is very desirable that an adequate account of his career should appear in the Gazette. Some such notice can, of course, always be compiled from information obtained from official sources, but this lacks the personal touch and the intimate knowledge of character which a friend or relative alone can supply. As it is only fitting that some tribute should be paid to a dead son of the hospital by the journal which represents that hospital, we appeal to the relatives or friends in such cases to send to the Gazette first-hand information which would be of service in compiling an obituary notice.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated.*

A Blue Book and Human Nature.

In all the efforts which are being made to improve the lot of "the masses" by all the agencies which are at work with this end in view, it must never be forgotten that the human nature of individuals is a factor to be reckoned with. In the past, social reformers and politicians have, perhaps, been a little apt to forget this factor ; laws have been framed, prohibiting this or seeking to enforce that, without reference to the ingrained habits and tendencies of the very people who are most affected by the changes. It has been forgotten that the proverb, "You may take a horse to the water, but you cannot make him drink," applies with even greater force to working-men, for example, than to horses. The temperance reformer often seems to argue thus : "Take the working-man's beer away from him, and you will destroy his taste for it." But is it so ? We constantly read diatribes against the brewer and the publican as though they had formed a diabolical compact to ruin the working-man by tempting him, even against his will and liking, with beer. Surely little progress will be made in the cause of temperance until it is realised that the British working-man does really like beer and wish to drink it. Failure to recognise this obvious fact has resulted in much misdirected effort. We may legislate until, in the vulgar phrase, all is blue, but some deep-seated traits in human nature will persist in spite of our Acts of Parliament. Promoters of Utopian schemes would do well to remember this.

In addition to the fundamental traits in human nature which he shares with his fellow-man, the British working-man has certain qualities which must be taken as axiomatic. He will not work a moment beyond his hours ; he will not do a stroke of work more than he is paid for; he does not mind the State feeding his children so long as no sacrilegious hand is laid on his beer ; he will rub his dirty working clothes against his fellow-travellers in tram or train, and further assert his liberty by promiscuous spitting ; at various times he will show, in

turn, the courage of a lion, the cunning of a wolf, the stupidity of a sheep, or the obstinacy of an ass.

Among these well-established characteristics of the British working-man must be reckoned a firmly-rooted antipathy to the Poor Law in all its branches of indoor and outdoor and medical relief. A stigma is held to attach to persons helped by these agencies. The Old Age Pensions scheme was an attempt to provide for the aged, without this stigma of being "on the Guardians" attaching to them. On the same view, the Poor Law Commission would seek to destroy the whole fabric of our present Poor Law, and to substitute for it new authorities bearing a new name, which might very possibly smell sweeter in the pauper's nostrils. In London the word "infirmary," again, has an ill sound to many a poor patient. In a voluntary hospital he will accept exactly similar benefits in the way of free food, treatment and nursing without compunction; in an "infirmary" these benefits are, or were, very often held to carry with them a certain disgrace to the recipient.

On the other hand, the great improvement in Poor Law infirmaries in recent years has led to a tendency in the opposite direction, so that, especially where the infirmary and the workhouse are separate, cases of abuse of the former institution undoubtedly exist; and in the opinion of many relieving officers, medical relief is in many cases "the thin end of the wedge" leading to pauperism.

Some interesting facts bearing on these points are embodied in a report recently issued in connection with the Royal Commission on the Poor Laws.* The object of the inquiry was to ascertain how far the work of the voluntary general hospitals is overlapping with that of the Poor Law medical services. Two distinct lines of investigation were to be followed in this inquiry:—(*a*) To ascertain how far identical patients in a limited area, or areas, were being helped by the two agencies; and (*b*) to show how far the two agencies deal with a similar class of person.

Three hospitals were selected for the inquiry—St. Thomas', St. Mary's, and the Royal Free. The names of patients treated in their casualty and out-patient department during a given week were referred to the relieving officers corresponding to their home districts, and the relieving officers were asked to state whether any relief had been given to the patient or his family during the six months previous, or the three weeks subsequent, to the hospital treatment. In speaking of the intercourse between hospitals and the Poor Law, the investigator remarks that:—

> "An extraordinary antagonism seems to prevail between the two agencies. Relieving officers are fretful of the constant claim on their time, taken up by application for removal from their local hospitals of the homeless, or of people who do or do not belong to that particular union. It was said that the wrong class of person is sometimes sent from the hospital to the infirmary; and that the hospital encourages people to demand relief, sometimes giving them open slips addressed to the relieving officer. . . The hospitals, on the other hand, complain of the great dilatoriness of the relieving officers and guardians in coming to the rescue, and accepting the responsibility of distinctly destitute patients. The hospitals would have the unions accept their word as to destitution. . . . Constant conflict seems to prevail in all parts of London. St. Thomas' and the London Hospitals have agreed to transfer when necessary their indigent patients to the infirmary of the patient's *own union* as far as possible—thus saving the local infirmaries (Lambeth and Whitechapel respectively) to a very large extent. But peace even here does not seem to have been arrived at, for the more distant unions take their own time in coming to fetch the patient. Two instances were given where the hospital, after repeated requests to the parish for removal, drove the patient in the hospital van to the infirmary and deposited him on the infirmary doorstep. In one of the cases the patient was driven back to the hospital in the parish van and had to abide in the hospital till the guardians satisfied themselves as to the home conditions."

Such is the confusion existing among the different medical institutions! Small wonder that the patients themselves go indifferently to one or the other, or even to each in turn. The

* *Report on the Overlapping of the work of the Voluntary General Hospitals with that of Poor Law Medical Relief.* By Norah B. Roberts, 1909. (His Majesty's Stationery Office.) Price 4½d.

results of the inquiry led the investigator to the following conclusions :—

"1. That the extent to which patients receiving out-treatment at the voluntary general hospitals are actually Poor Law cases, is about 11 per cent.

"2. That the proportion of hospital patients who may be said to be of similar class as applicants for medical relief from the parish, is about 38 per cent. (This proportion includes the aforesaid 11 per cent.)"

That part of the report, however, which more particularly interests us here is the information under the heading "Reasons for attending hospital" given by 233 persons recently receiving treatment at voluntary hospitals, and "Reasons for application to parish" given by 84 cases of persons recently in receipt of "medical relief only" from the parish. In other words, we find here a number of answers given by patients to the question :—"Why do you go to the hospital, or to the Poor Law, or to a private doctor, as the case may be, for medical treatment?"

Pecuniary considerations, of course, are often advanced in explanation: "Could not afford to pay a doctor," "Likes getting it for nothing," "Afraid of starting a doctor's bill," are typical cases. Nearness to the hospital or the relieving officer is naturally also a very frequent reason given for seeking relief at one or the other agency. In many cases a mere preference for one or other institution was stated :—"Prefers hospital to private doctor," "Always goes there," "Has faith in that hospital." In some cases dissatisfaction with one of the other agencies is the reason given :—"Lost faith in London Hospital," "Dissatisfied with club doctor," "Offended at another hospital," "Vexed with Guy's," "Private doctor did no good," and "Tired of Anti-vivisection Hospital," are samples of these prejudices.

Some of the answers display more individuality and others throw side-lights on some of the fundamental traits of human nature. "Custom of the neighbourhood," for instance, is the reason given by one conventional mortal for attending hospital; The chronic grumblers are represented by the following: "Family does not hold with hospitals, and complains also of Provident Medical Dispensary." One profound sceptic states, "No hospital does any good." One man attends a hospital for a strained back, "Because mother-in-law always flies there." Some of the patients are critical of their treatment elsewhere: one man, for instance, goes to St. Thomas' for his bronchitis "Because medicine from Guy's didn't do any good. Threw it down sink each time." Another patient "Hoped to get Scott's Emulsion, but was only given pills, so returned to private doctor." Likes instead of dislikes are occasionally mentioned: a coster's wife in Islington goes to hospital for her indigestion because she "likes the interest the students take;" a boy in the same neighbourhood is "very fond of hospital, and often goes there by himself." Some state their faith in hospitals—*e.g.*, "More faith in hospital for operations," "Hoped hospital would find out the trouble better than the doctor," "Hospital treatment best," and one model patient goes to hospital "For best opinion; and in the habit of attending hospital. Proper place to go to."

Such are some of the reasons why our clients go to a hospital or do not, as the case may be. They are as various, as prejudiced and as illogical as the reasons given by patients for going to one private doctor rather than another. After all, we are not concerned with their reasons; in the present muddle of charity it is our business to treat each patient to the best of our ability, whether he comes to us because we are nearest, or make fewer inquiries about him, or make up a nicer cough mixture than they do at St. ——'s Hospital, or because he really believes that ours is the best place to attend, and that we, who cured somebody else's bad leg, must be able to cure his also.

Periodicals Received.—The Hospital; The Clinical Journal; St. Mary's Hospital Gazette; The Nursing Times; St. Thomas' Hospital Gazette; St. Bartholomew's Hospital Journal; The Polyclinic; The M. S. Journal; My Journal; The General Practitioner; Annales de Physicothérapie.

Two O'clock.

At two o'clock, says *M.A.P.*,
The King (God bless his royal trypsin)
Enjoys a humble cup of tea
And if Lloyd George or Asquith slips in,
Or any Minister of State
Who finds a sudden need or liking
For conversation, he must wait
Till after two has finished striking.

And two o'clock is just the time
When each well-known romantic-play light,
Who looks heroic in the lime
And grand-paternal in the daylight,
Rings up the curtain to his flock,
And, warmed by approbation tender,
Is cured of G.P.I. by shock,
Or hacks his way through blood to Zenda.

At two o'clock, with studied ease,
Willie (to whom all praise is due) sits,
To gossip on colectomies
With graduates from Massachussetts;
And undeterred by wild abuse,
Which only makes his tone the blander,
He seeks to find a proper goose
To circulate his propaganda.

At two the modest nursling dons
Her cotton cape, and out she goes.
Ah me! if men would weigh the cons
Each time that they waylay the pros!
But who can stand a smile so sweet,
A glance from eyes as soft as pansies,
The twinkle of the tiniest feet
That ever walked in *Louis Quinzes?*

Girls' boarding-schools will dress in black
When Waller's tones at last have faltered,
And if the King his tea should lack
The map of Europe might be altered.
Surgeons for many years have warred
On whether Willie ought or oughtn't,
But whether nurses walk abroad
Seems absolutely unimportant—
To all the world, but not to me!
Let actors fall and Kings expire,
Commend or damn bold surgery,
But leave us tea and Rumpelmayer!
And so at Adams' corner I
Stand peering for a lilac frock,
Expectant in the Borough High
At two o'clock.

S. S.

Pass List.

University of London, July, 1909.

M.D. EXAMINATION.

BRANCH IV.—MIDWIFERY AND DISEASES OF WOMEN.

P. W. Hamond.

University of Durham, July, 1909.

THIRD EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.—PATHOLOGY, MEDICAL JURISPRUDENCE, PUBLIC HEALTH, AND ELEMENTARY BACTERIOLOGY.

H. L. James. | J. H. Owen.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.—ELEMENTARY ANATOMY AND BIOLOGY, CHEMISTRY AND PHYSICS.

R. P. Ninnis.

Royal College of Surgeons of England, July, 1909.

L.D.S. PRELIMINARY SCIENCE EXAMINATION.

Part I.—Chemistry.	Part II.—Physics.
G. F. Charles.	W. G. S. Neely.
C. F. Haine.	*H. J. Pegler.
A. H. Harkness.	R. C. W. Staley.

*Chemistry only.

Final Conjoint Examination, July, 1909.

MEDICINE, SURGERY, AND MIDWIFERY.

*M. A. E. Duvivier. | *W. Ledlie.

MEDICINE AND SURGERY.

*A. L. Fitzmaurice.

MEDICINE AND MIDWIFERY.

G. F. Haycraft. | W. L. Hibbert.
G. H. Peall.

SURGERY AND MIDWIFERY.

*C. H. Crump.

MEDICINE ONLY.

W. H. Catto.	R. C. H. Francis.
A. E. P. Cheesman.	W. G. Tucker.
*M. M. Cowasjee.	C. Weller.

SURGERY ONLY.

*S. S. Brook.	E. L. Elliott.
*F. J. Cutler.	*H. W. Heasman.
*H. L. Duke.	*C. G. Sprague.

MIDWIFERY ONLY.

F. S. D. Berry.	F. Kahlenberg.
F. C. Endean.	H. F. Percival.

N. A. D. Sharp.

*Denotes completion of examination.

First Conjoint Examination, July, 1909.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
*A. J. Drew.	W. R. Pryn.
R. C. Matson.	F. L. Spalding.

*Passed in Part I. only.

Part III.—ELEMENTARY BIOLOGY.

P. R. Chevreau.	W. L. Partridge.
J. E. Davies.	W. R. Pryn.
R. C. Matson.	P. J. F. L. Rathier Du Vergé.
A. V. Moberly.	
A. S. Morgan.	A. F. Salsbury.

F. L. Spalding.

Part IV.—PRACTICAL PHARMACY.

H. R. Bastard.	C. H. Medlock.
R. B. Campion.	H. L. Messenger.
K. B. Clarke.	Q. H. Richardson.
Jap Ah Chit.	H. I. Shahin.
E. L. Jones.	H. Steinbach.
W. S. Lacey.	T. J. Killard-Leavey.

W. E. Tanner.

Royal Army Medical Corps, July, 1909.

P. C. Field.	V. P. Hutchinson.

A. G. Jones.

Indian Medical Service, July, 1909.

M. A. Rahman.	F. J. Kolaporewala.

Papers, etc., Received.

The M.S. Journal, the Medico-Surgical Journal of the Tropics. Monthly. (Calcutta: 198, Cornwallis Street.)

We have pleasure in welcoming among our exchanges this new journal from the East. The articles are mainly of a practical nature, and in this particular issue are mainly by native writers, but the list of past, present and expected contributors includes many well-known names in England and America, including, we notice, that of Dr. E. I. Spriggs. The present issue includes a paper on the treatment of typhoid, notes on new remedies and therapeutic hints, a paper on the "Mode of Action of Salts in the Alimentary Canal," in which the author discusses the new views on the purgative action of salines, and a leading article on Indian Medical Service reform. Under the heading "Nova et Veratera" (*sic*) is an account of some Terai superstitions relating to pregnancy and childbirth. *The M.-S. Journal*, it should be added, is under the capable editorship of Dr. S. K. Mullick. We wish it all the success which is promised by the early numbers.

From the Gazette's Special Pathologist.

G.F.S., KENNINGTON.—This is a faintly alkaline opalescent fluid of sp. gr. 1015, only moderately albuminous in character. The opalescence persists after long centrifugalising, but is more or less cleared up by extraction with ether, and the ethereal extract is found to yield a moderate quantity of fat. This opalescent chyloid character is common in ascitic fluid of low sp. gr. The centrifugalised deposit from the fluid is fair in amount, and consists of leucocytes with slight admixture of red blood corpuscles. The leucocytes have undergone considerable maceration with some destruction of their characters, but a fairly reliable differential count has been possible from Jenner stained films. The results are as follows:—

Myelocytes	28 per cent.
Eosinophile myelocytes	12 "
Polymorphonuclear neutrophiles ...	23 "
Lymphocytes	7 "
Eosinophile leucocytes	8 "
Mast cells	22 "

The percentages are such as are common in the blood in myeloid leuchæmia, except that the mast cells are unusually abundant.

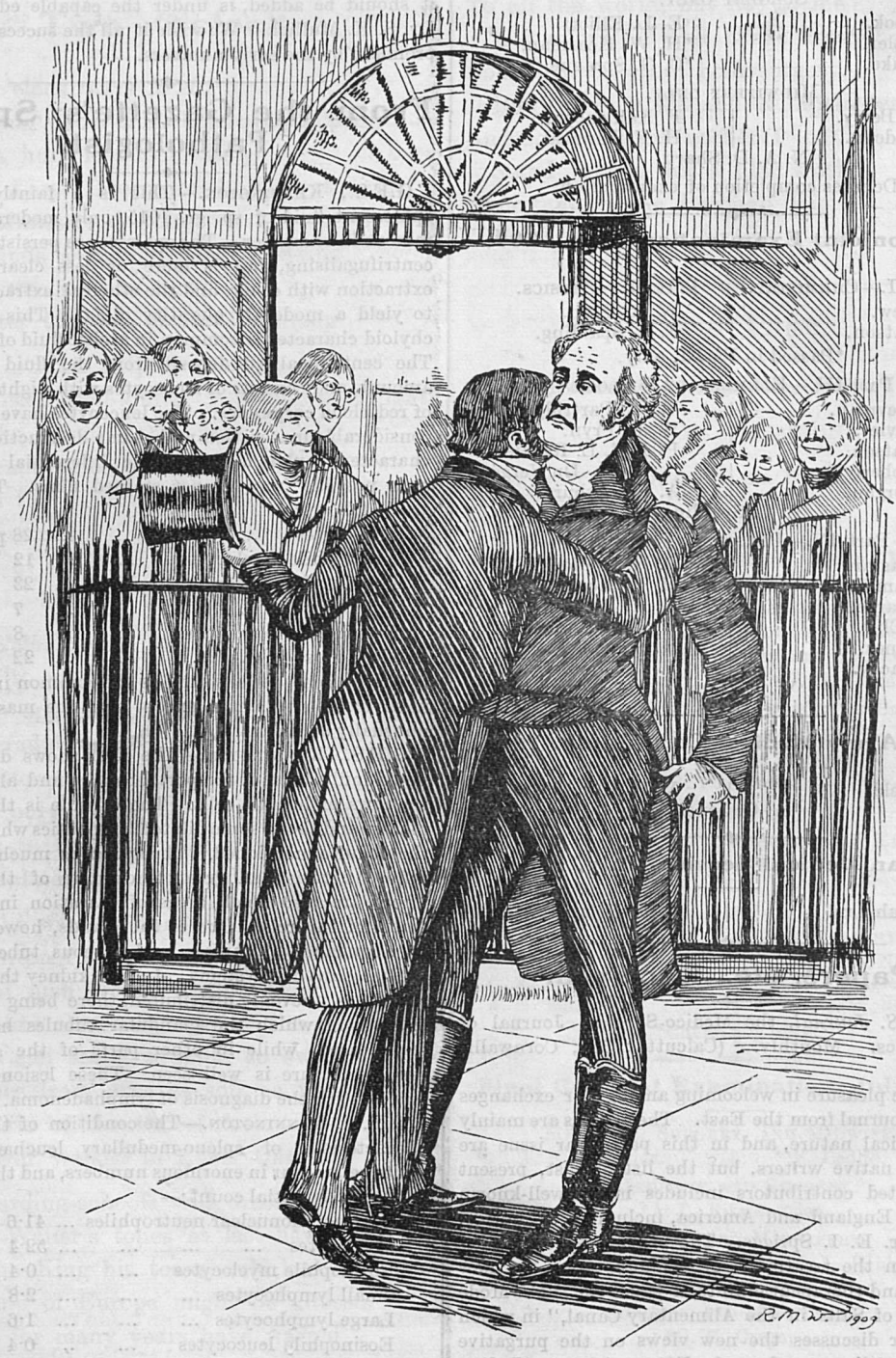
G.F.S., KENNINGTON.—The liver shows diffuse lymphoid infiltration of the portal canals, and also between the rows of hepatic cells. The capsule is thickened in places, and shows some dilated lymphatics which produce the nodules mentioned. The spleen is much altered by diffuse fibrosis and great thickening of the capsule. There are also small areas of caseation in it, but no traces of tubercle. One of the glands, however, shows an abundance of miliary and caseous tubercles, with typical giant cell systems. In the kidney the lymphoid growth is unevenly distributed, there being large areas of it from which the glandular tubules have almost disappeared, while in other parts of the section the renal structure is well seen. These lesions are compatible with the diagnosis of lymphadenoma.

G.F.S., KENNINGTON.—The condition of this blood is characteristic of spleno-medullary leuchæmia. The white cells occur in enormous numbers, and the following is their differential count:—

Polymorphonuclear neutrophiles ...	41·6 per cent.
Myelocytes	52·4 "
Eosinophile myelocytes	0·4 "
Small lymphocytes	2·8 "
Large lymphocytes	1·6 "
Eosinophile leucocytes	0·4 "
Mast cells	0·8 "

Nucleated red cells have been counted in the proportion of one to each hundred leucocytes.

PATHOLOGIST.



Episode for a Guy's Pageant.

"Sir Astley's fame was European, so that distinguished foreign surgeons never failed to visit him at the Hospital. We read of Dupuytren going round the wards with him. . . . . When he took leave he saluted the worthy baronet on each cheek. The manner in which Sir Astley submitted to the ceremony afforded no small amusement to the pupils standing round."—WILKS AND BETTANY'S HISTORY.

Sudden Death.

CLINICAL LECTURE BY Dr. HERBERT FRENCH.

(*Concluded.*)

Having discussed the cardiac and aortic causes of sudden death in a former lecture, let us now pass on to consider brain conditions that may end in a similar way. First and foremost of these comes apoplexy, or cerebral hæmorrhage. This is an affection of the elderly, though it is possible to have a cerebral hæmorrhage in the young, and it is commoner in men than women. Aldermanic banquets are responsible for quite a number of cases of cerebral hæmorrhage, especially when there is added the mental excitement of making a speech. The main features of cerebral hæmorrhage are so familiar to you all that I need not dwell upon them here. The commonest place in which to find a hæmorrhage in the brain is said to be the internal capsule, but the point I wish to lay most stress upon is that an internal capsular hæmorrhage does not begin in the internal capsule, and it is erroneous to talk as if it had its origin there. It starts outside the internal capsule. There is an artery called the lenticulo-striate, which enters the brain upon its infero-external aspect from the Sylvian fissure, running forwards and inwards, first to the lenticular nucleus and then across the internal capsule to the caudate nucleus. It is this artery that leaks and gives rise to hæmorrhage. If we cut almost half way down the brain in a horizontal plane we expose the internal capsule and its surroundings in a way that I may represent to you on the black-board thus.

Now let me represent the various degrees of the lesion in ordinary apoplexy. If we have a very small hæmorrhage which does not prove fatal, we are sometimes able to follow up the patient until he dies, perhaps five or six years afterwards, from another cerebral hæmorrhage. We may then find the effects of the former hæmorrhage as well as of the one that afterwards proved fatal. A specimen in the museum shows the remains of such an old hæmorrhage here in the lenticular nucleus, external to the internal capsule, and this is the commonest place for it to start. As it increases it extends along the course of the vessel towards the internal capsule, until finally a big hæmorrhage destroys the internal capsule and all the structures in its neighbourhood, extending into the third ventricle, across into the opposite lateral ventricle, and also down the iter of Sylvius into the fourth ventricle. The chief result in any case is a hemiplegia, but it depends entirely upon how big the hæmorrhage is what the course of the case will be. One may distinguish at least four degrees of this common form of cerebral hæmorrhage, namely, (1) that in which there is only a small extravasation of blood, confined to the lenticular nucleus, and barely compressing the internal capsule at all; (2) a slightly larger hæmorrhage, still confined to the lenticular nucleus, but exerting decided pressure up against the internal capsule; (3) a bigger hæmorrhage, no longer confined to the lenticular nucleus, but extending and destroying neighbouring structures, including the internal capsule, but not vital centres in the medulla or elsewhere; (4) a hæmorrhage so extensive as to be incompatible with the continuance of life. You will understand from these diagrams what I mean, and you will realize how some people may get complete paralysis of one side of the body for a very short time—a day or so—and then lose it completely; other people may have apoplexy, with complete paralysis of half the body which may last ten days, a fortnight, or three weeks, and yet get absolutely well; others, again, may suffer from cerebral hæmorrhage causing a hemiplegia from which the patient never recovers—there may be temporary improvement, but not complete cure; and,

finally, there are very bad cases that rapidly end in death. In the first, the slight instance, in which the blood exerts little, if any, pressure against the internal capsule, the reason of the hemiplegia is the sudden upset of the balance of circulation, most marked where the hæmorrhage is, so that the adjacent internal capsular fibres are for the moment prevented from carrying impulses, whilst as soon as the balance of circulation is restored, the fibres conduct again and the patient seems to be perfectly well. The next degree of hemiplegia, which takes a few weeks to get better, but ultimately recovers completely, depends on there being something squeezing up against the internal capsular fibres and compressing them without destroying them; they will not conduct impulses until that pressure has been removed, that is to say, until the clot has become partially absorbed—a week or two after the seizure. The third degree will never recover completely, though there may be slow improvement even for months after the apoplexy occurred. The greater the number of internal capsular fibres that have actually been destroyed, the greater will be the degree of hemiplegia that persists, in spite of some attempt at innervation by the other hemisphere of the brain.

One other point about cerebral hæmorrhage may be new to you, and that is its possible association with glycosuria. You may be called to see a man who is comatose, and in trying to determine the cause of the coma you will probably examine the urine. Not infrequently you will find that the latter contains sugar in abundance. Remember that glycosuria in cases of coma by no means necessarily indicates diabetes; for if the extravasated blood in a case of cerebral hæmorrhage finds its way into the lateral ventricle, as it often does in a serious case, it is easy for it to travel thence into the third ventricle and thence by the iter of Sylvius to the fourth ventricle, where it may interfere with the surrounding centres and lead to Claude Bernard's "Stichpunkt" glycosuria.

Pontine hæmorrhage may cause glycosuria in exactly the same way; and sudden death from pontine hæmorrhage is due to damage to the vital centres in the medullary region. I would ask you to remember how the thermometer assists you in distinguishing between pontine hæmorrhage and opium or morphia poisoning; in each case there is coma, with flaccidity and pin-point pupils, but with the former there is pyrexia going on to hyperpyrexia, and with the latter hypothermia.

Let us now discuss another affection of the brain which may lead to sudden death—embolism. It sometimes happens that a person dies suddenly as the result of cerebral embolism. Nine out of ten times the cause of that is something the matter with the heart, so that although it may seem to be a cranial condition, it is primarily a cardiac cause of sudden death. Of the heart lesions which are not malignant, mitral stenosis is that which is most commonly associated with cerebral embolism, but more important and serious than simple mitral stenosis is infective endocarditis. You might expect cerebral embolism to be fatal every time it occurs, but that is not by any means the case; indeed, in mitral stenosis the embolism may cause hemiplegia without even any loss of consciousness. Occasionally, however, cerebral embolism proves immediately fatal, and at the autopsy it may be very difficult to detect anything wrong with the brain at all. Death has occurred so abruptly that the brain tissue has had no time to become softened or discoloured, and the embolus may be entirely overlooked unless the vessels are cut up and examined with great care.

In infective endocarditis cases the embolism may not itself prove fatal, and yet the patient may die suddenly a week or ten days later with cerebral symptoms suggesting cerebral hæmorrhage.

This may occur even in quite young patients—a boy or a girl who has had a valvular lesion, upon the top of which fungating endocarditis has developed.

This specimen will show you what happens in those cases. You see here a small but ruptured aneurysm of the internal carotid artery. The patient had fungating endocarditis from which cerebral embolism resulted owing to a piece of the clot from the affected valve being carried up into the middle cerebral artery. The clot contained micro-organisms which multiplied and softened the wall of the artery. The vessel bulged at the softened spot, and in that way there was produced an aneurysm, which, as its walls were more and more softened and thinned, finally leaked, causing a cerebral hæmorrhage. The patient suffered from hemiplegia and coma as the result of the original embolism, but after the first day recovered consciousness and seemed to be doing famously; but a week later a sudden ending occurred synchronously with the bursting of the cerebral aneurysm.

Another point in regard to intracranial lesions that I would ask you to remember is the possibility that when you diagnose ordinary cerebral hæmorrhage you may be dealing with a much graver condition, namely, hæmorrhage into a tumour. Try and find out whether a tumour is present; and therefore do not omit to look at the optic disc to see if there is any optic neuritis. A cerebral tumour does not always give rise to obvious symptoms unless it either irritates the motor cortex and causes Jacksonian epileptic fits, or else interferes with the motor cells, so that there is paralysis; or unless by its mere bulk it causes enough increase in intracranial pressure to produce headache, vertigo, vomiting, optic neuritis, and general convulsions. There may be a glioma or a sarcoma growing insidiously in the brain, and the patient may have no more symptoms than increasing headaches. In such a tumour there are often many thin-walled blood vessels, and one or more of these may rupture and cause death from what may seem to be a simple cerebral hæmorrhage.

Leaving the brain now and passing on to lung conditions that may cause sudden death we find at least three that are important; these are (1) pulmonary embolism, (2) pulmonary hæmorrhage, and (3) very large pleural or pleuritic effusion. Pulmonary embolism may vary much in degree; multiple small emboli in the lungs are by no means necessarily fatal; their gravity depends on how ill the man is, on what is the matter with the patient already, and on whether the emboli contain bacteria which go on to produce abscesses in the lung. The kind of pulmonary embolism which is most serious occurs mainly in the practice of those who operate much. Its percentage incidence is fortunately small; but when it does take place it occurs about the tenth day after some major operation, particularly abdominal, or about the same time after a normal or a difficult labour. It generally occurs after there has been some movement of the patient. If there has been thrombosis in the iliac veins, for instance, after an operation on the vermiform appendix, movement may detach a big clot which has not had time to become organised, and now and then in hospital a patient has had the operation wound heal by primary intention, and has been progressing famously in every respect until, on beginning to sit up in bed, he suddenly falls back dead. The clot, suddenly detached in this way, has been carried along and impacted in a main pulmonary artery. It is important, therefore, not to be in too great haste to move people after operations, or after labour, particularly if there may have been any inflammatory focus near big veins, as is the case after appendicitis. What will such lungs show at the inquest? How can you tell there has been a suddenly fatal pulmonary embolism? I want you to realise that, unless you are careful, you will find nothing to

show for it at all. You might expect, perhaps, that there would be an obvious infarct in the lung, but death occurs so suddenly that the lungs themselves have no time to alter from their normal appearance. When you suspect that there has been a large pulmonary embolus, you need to cut open the pulmonary artery inch by inch, and even then if you are not careful you will wash away the only thing which will tell you the cause of death, that is, a large irregular pale clot which is of such a shape that it was obviously not formed in the place in which you find it. You need to be extremely careful in autopsies of this kind.

With regard to rapidly fatal pulmonary hæmorrhage, the only cause of that, apart from aneurysm of the aorta rupturing into the lung or into a bronchus or the trachea, is the bursting of a small aneurysm on a pulmonary arteriole, especially in cases of chronic phthisis with cavitation. The tuberculous process eats away the lung tissue gradually, and the part which is in closest relation to the blood-vessels is eaten away last. The vessels may remain after all the surrounding lung tissue has been eaten away; and in many cases of phthisis you find that there are big irregular cavities, with bands of tissue running across them from side to side, referred to in books on pathology as "bridles." I show you examples of these in these specimens from the museum. Inside each bridle there is a pulmonary arteriole. If the blood were clotted inside the latter it would not matter, and in ninety-nine out of one hundred the gradual extension of the infective process causes thrombosis before the bridle is ulcerated away. Sometimes, however, the wall of the arteriole becomes so softened by being bathed in the pus within the cavity in the lung that its wall becomes bulged out into one or more small aneurysms of which I show you specimens here, and when bleeding occurs, even from such a small aneurysm as this, it may be very rapidly fatal. Bleeding in cases of phthisis may not be at all dangerous itself if it is due only to the opening of capillaries or veins and not of arteries; but when the blood is escaping from a pulmonary arteriole it is a very serious thing indeed. Nevertheless it is very difficult to tell clinically which is going to be a fatal pulmonary hæmorrhage and which is not.

In illustration of this point, I should like to tell you of a personal experience I had when I was H.-P. I had to deal with two apparently identical cases at the same time in the front surgery. Both were cases of phthisis, and both were coughing up blood. One patient was a man, the other a woman; the physical signs were very similar in each. It so happened that I had a male bed available, but not a female bed, and I had to send the female case home. The male case I took in. The man died that night of an extraordinarily severe hæmorrhage, and the woman recovered entirely for the time being. There was nothing to choose between the two cases, so far as could be judged clinically; it was only an accident that the one taken in was the one that was to prove suddenly fatal. It might well have been the other way about. The point is that it is impossible to tell clinically how serious a pulmonary hæmorrhage in a case of phthisis is going to be, and if you carry in your minds these museum specimens of pulmonary aneurysms you will, I am sure, treat all such cases with the very greatest care.

There are a few more causes of sudden death mentioned in the list I gave you in the former lecture, but I have not time to go into them in detail. You should be familiar with the fact that spinal cord conditions are fatal in proportion as they implicate the origin of the phrenic nerve; when that is destroyed the patient dies, for he ceases to breathe. Such a death may occur suddenly, but it does not always do so; it may result from injury, hæmato-myelia, or fracture of the cervical spine. Inflammations of

the grey matter of the spinal cord may spread upwards at a great pace, and the resulting death may be almost sudden. Landry's paralysis, also known as acute ascending paralysis, may possibly be an example of this—fatal cases being so acute that the tissues have had no time to alter their appearances from the normal.

Do not forget laryngeal conditions as a cause of sudden death. Of these I may mention five in particular. Remember that in laryngeal diphtheria the patient may seem to be doing quite well, and you may decide that the obstruction to breathing is not bad enough for tracheotomy; and yet, in addition to the mechanical stoppage of the larynx due to inflammation, there may presently be added obstruction from spasm of the laryngeal muscles, with the result that the patient who appeared to be doing so well may be dead in less than a minute. People, especially children, with any laryngeal inflammation causing dyspnœa are never safe to leave alone, and tracheotomy instruments should always be ready at their bedside. Secondly, apart from inflammations of the larynx, you should be familiar with the fact that two types of acute œdema of the larynx may occur, viz., (1) inflammatory œdema; (2) acute œdema occurring in Bright's disease, or in a peculiar hereditary complaint known as angeioneurotic œdema. This acute œdema may cause sudden death. Thirdly, there are cases of extraordinarily sudden and severe cases of inflammatory œdema of the larynx, acute suffocative œdema, as it is called. This is a streptococcal condition, extraordinarily virulent; and the patient may be asphyxiated in a short time unless prompt surgery gives an airway. Fourthly, paralysis of vocal cords may be a cause of sudden death. In syphilitic subjects particularly, special portions of the brain may suffer from nerve-cell degeneration. If the centre controlling the movements of the vocal cords is attacked, it is a most unfortunate fact that it is always the abductor muscles of the pharynx that get paralysed first, so that before the adductors become paralysed there may be a sudden bringing together of the cords by adductor spasm, and unless tracheotomy is performed instantly the patient cannot breathe, and death occurs as certainly as if he were killed by strangulation. You will appreciate the fact that there may be next to nothing abnormal to be found post-mortem in such a case, and the cause of death may be thought to be unnatural unless a clear clinical history is obtainable. Fifthly, be very careful how you hasten to open a quinsy by plunging a scalpel into a tonsillar abscess. It is possible that when you put a knife into a large abscess in the tonsil, a large amount of pus may squirt out, and if the patient happens to inhale at the same time, a large quantity of that pus may be inhaled into the larynx, a very serious matter, which may cause sudden death. I have seen a case in which this dire accident occurred.

Before concluding I wish to touch for a moment upon an entirely different condition, that of Addison's disease. It is well known that this is a complaint in which the main symptoms are progressive weakness or asthenia, pigmentation of the skin and of the buccal mucosa, and fainting attacks. There may also be vomiting and irregularities of the heart's action. The disease is to all intents and purposes incurable, and we may be asked how long a given case of Addison's disease is likely to live. The patient may live for months or years; he may die of some intercurrent malady such as pneumonia; he may develop general tuberculosis; but I want you to know that a patient suffering from Addison's disease may seem to be just as well to-day as he was a year ago, and yet may be dead before to-morrow. Addison's disease, therefore, is a possible cause of sudden death.

I am obliged to leave a great deal unsaid, and to pass by many causes of sudden death quite

unmentioned; but I trust that at least one or two of the points that we have discussed may some day be of use to you.

A Gold Swallower.

THE following case would hardly be called a scientific one, yet it is amusing, and perhaps to a certain degree instructive.

A.C.L., the mate of a small vessel passing down the Thames, consulted me on September 21st, 1908, concerning an unfortunate catastrophe that had just happened to him, inasmuch as he had that morning accidentally swallowed three half-sovereigns. He informed me that early that morning, whilst in the act of counting out some money, which he had just taken from his trousers pocket, comprising gold, silver and copper, so as to pay some silver away, he picked out four half-sovereigns and placed them in his mouth. Whilst he was engaged in collecting the amount of silver he required, a sudden fit of coughing seized him, when he ejected one of the coins from his mouth, but unfortunately swallowed the remaining three. Being naturally greatly upset by the loss of his three half-sovereigns, as soon as he could manage it, he came ashore and saw me.

At first, I thought of giving him an emetic, but as some time had elapsed since the accident, I advised him to try the diet treatment, that is, to take plenty of bread, cake, suet-pudding and other such food for three or four days, at the same time refraining from taking as little liquid as possible, and then, at the end of that period, to take an ounce of castor oil. I pointed out the absolute necessity of defæcating in some utensil or other, so that he could examine each stool.

If I had been a sensible man, I might have made a bargain with him, that, if the treatment was successful, he was to give me one of the half-sovereigns, but I neglected to do so. I laughingly warned him not to tell any of his ship-mates about his misfortune, lest they should kill him for what he had inside him.

I heard nothing more of my patient, although I took his address for the purpose of inquiry, and the case had entirely slipped away from my memory; but on May 13th last, this same man came to consult me about himself, and I then at once remembered that he was "the gold" swallower I saw in September last. On asking him the result of my treatment, he said that he faithfully carried it out, and was rewarded on the fifth day afterwards by finding his three half-sovereigns lying close together in one solid evacuation, and he remarked that they were as bright as when they came out of the Mint. I suggested that perhaps they had been brightened up purposely by the bacillus coli communis and his confederates, but I don't think my patient understood me.

Gravesend. R. J. BRYDEN.

Some Hunting Experiences in N.W. Rhodesia.

To not all of us is granted the gift of writing theses on obscure bacteriological theories, or the faculty of appealing to the humorous side of the human disposition as in the charming GAZETTE "Lighter Vein," so that I trust some African hunting experiences by Guy's men, simply narrated by a regular reader of the GAZETTE may interest some and tend to distract attention temporarily from the more serious side of hospital life.

I beg humbly to apologise for my own picture accompanying some of those of the noble African game. If answering no other purpose, this may, perhaps, dispel the possibility that these experiences are not those of the author. It also answers the purpose of giving some rough indications of the size of the respective animals. Holding an official position on the Cape Government Railways, and being allowed an annual free pass over the African Railways, has made sport north of the Zambesi of comparatively trifling expense. On my first trip of a month's duration, during September and October, 1904, I was accompanied by no white man. I pushed out along the north bank of the Zambesi from Livingstone with eleven carriers. At Kazangula, forty miles from Livingstone, after spending two days at good sport with the ferocious tiger fish in the Zambesi, I steered N.W., and struck the Umguayi river fifteen miles from where it enters the Zambesi. On this river in a fortnight I secured sable, roan, haartebeeste, reedbuck, oribi, warthog, crocodile, and a fine male lion, which last-named I found unexpectedly feeding on a sable antelope which he had killed the night before. He sprang out from behind a big tree fifteen yards from where I was standing, and, running directly away, pulled himself sharply up at seventy-five yards and with his body broadside-on turned and looked at me on the side of a big ant-heap. His death-warrant was sealed with the second shot, which passed through the upper part of his heart. He ran fifty yards and fell dead. On almost all occasions I have noticed that when an animal receives a bullet in the heart or big vessels it stampedes and runs violently, and without any regard to direction, until, after having run from fifty to two hundred yards, it falls absolutely dead, the fall only being followed by slight muscular quivering for a few seconds. I have seen a zebra, when wounded through the heart gallop, at a terrific speed aimlessly for two hundred yards, completing a huge semicircle before dropping suddenly dead.

Lion.

On this trip I had the misfortune to get stung by a small scorpion on the finger, which had the effect of making me dance round for a few hours. Stings from scorpions in South Africa must be very rarely fatal, even though the insect be 4 or 5 inches long. Although I have seen many cases of stings, in only one case, and that in a feeble sickly child, was the patient more than locally affected. On this short expedition I was able to collect thirty-five specimens of different kinds of birds, and was fortunate enough to add a new lovebird to science (*Agapornis nigri genis*).

On a second trip in September and October, 1905, I was accompanied by a keen sportsman, Mr. Charles Struben (Advocate-at-law and M.L.A. for the Wynberg division of Cape Town). We took thirty-six boys as carriers and followed the same route as on my first trip, but, after spending a few days on the Umguayi river, we struck almost due north to the Majelie river, here situated about 100 miles N.W. from the Victoria Falls. We made our permanent camp on the Majelie river in a clump of trees standing out from the river some two hundred yards, in open grass country. On this occasion we disturbed a hippo from his daily resting place to make way for our camp. In a large pool on this river we killed thirteen crocodiles, ranging between six and ten feet long. One, 9 feet 6½ inches long, I later gave to the South African Museum, Cape Town. In a little more than a month's shooting we secured specimens of lion, eland, zebra, haartebeeste, wildebeeste, roan, sable, reedbuck, impala, steinbuck, grys-steinbuck, oribi, pookoo, and waterbuck.

Struben was one day walking along the edge of a wood spooring an eland when, at two hundred yards distance, he saw a lioness and two cubs walking slowly along in the open. He managed to approach to within one hundred yards without being seen, and grazed her shoulder with a ·450 soft-nosed express bullet. She turned suddenly and gave him a broadside view, when he put a bullet through her shoulder. The boys then made after the cubs, but only managed to secure one, the other escaping into a thick wood. By a strange coincidence I happened to be passing over the same ground five days later, and found the second little cub trotting along on the piece of ground on which her mother was killed. She had apparently had no food or water these five days. She later became a great pet, and lived in a specially made cage in my garden at Touw's river until she was fourteen months old and weighed about 140 pounds. She would allow me to do anything with her, would spring on my back if I stooped, and even allow herself to be wheel-barrowed round the cage by her hind legs. Certain old ladies (of both sexes) in this place became mentally perturbed lest she might escape and make a meal off their offspring, so that I had to get rid of her. She is now in the late Mr. Rhodes' splendid park at "Groote Schuur," near Cape Town, and is an elegant full-grown lioness. On this trip I was fortunate enough to obtain a grys-steinbuck with record horns.

The heat in the Zambesi valley during the middle of the day made it almost impossible for walking between 11 a.m. and 3 p.m. On a later trip on the Kafue river, high up near the Congo border, the temperature was much lower, and on several occasions we were able to walk through the heat of the day without any great effort. This part is, in reality, the Congo-Zambesi watershed, and at a much higher altitude than the Zambesi valley.

The Cape to Cairo railway by last year had reached Broken Hill, some 280 miles north of the Zambesi. My companion on a third trip during July, August, and September last year was Mr. Stuart Redpath, a Guy's man, and a dentist now practising at Bloemfontein. He had not before done any big game shooting, although a thorough sportsman. We reached Broken Hill towards the end of July, and two days later struck due north along the Ndola road—in reality but a Kaffir footpath—with forty-six boys. Redpath was armed with a modern Westley-Richards double-barrelled express cordite rifle of ·450 bore, and a Mauser. I had a ·303 Magazine sporting rifle, and a black powder express ·450. We each had shot guns.

When two days out from Broken Hill we met two white men coming in the opposite direction on their way to obtain construction work on the proposed railway extension from Broken Hill to the "Star of the Congo."

One of these warriors turned out to be a third Guy's man, Dr. J. E. Lane, who had been spending a year on the Kafulafuta river, some 100 miles north of this. Dr. Lane is an M.D. R.U.I., and had spent more than a year at post-graduate work at Guy's, so may fairly be reckoned as one of us. Although a man of some sixty years of age, he was obviously tough as nails, and thought nothing of walking twenty to twenty-five miles a day under a tropical sun. One of the photographs shows the three of us, with Dr. Lane in the centre, all proud

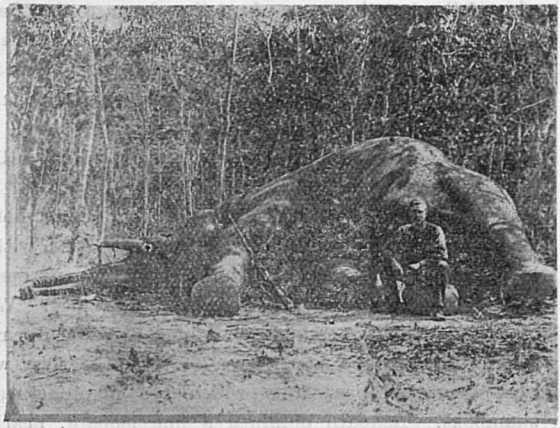
Kirkman, Lane, and Redpath.

of the name of Guy's, taken many miles from the haunts of civilization. We had a pleasant supper together off roast pork (from a warthog I shot the same morning), plum pudding, made by Mrs. Redpath, and sweet potatoes. washed down by a mug of diluted "Black and White." In this beverage we drank to the old Alma Mater, and methinks we enjoyed ourselves almost as much as had we been partakers of Möet at a Guy's Biennial dinner in the Metropolis. It may, perhaps, interest some of our Guy's friends to know that the remains of that bottle returned with us untouched to Broken Hill six weeks later. *Re* the much-disputed question of the value of alcohol when taking much exertion under a hot sun, a large number of old hunters and others living in hot parts of Africa agree that one is none the worse, but rather better, for a drink of whisky in the evening, but not until the sun has gone down. All are agreed that it is poison when taken in the daytime, although many appear to prefer to take all risks. I am prepared to say emphatically that on no occasion, even after having imbibed only ℥ss. well diluted, overnight, have I felt as well the next day as after coffee, tea, or cocoa. This is also the opinion of Struben and Redpath, with whom I have hunted. On the way out from Broken Hill we met a native who told us of an interesting experience he had the same morning. At 7 a.m., broad daylight, he was sitting in a little wooden shelter, made from branches of trees, in which he had slept the night, with a small fire in front of him, when an old maned lion, creeping on his belly, approached him to within a few feet. He drove him away by throwing a piece of burning wood at him. We made camp at this place on our first night out, and the boys took the precaution of building a strong "zareba" for protection. I found the old lion's spoor in the neighbourhood, but he did not approach us that night.

A day's march after leaving Lane, on the headwaters of the Lukanga, we obtained information from a local boy that elephants were doing a lot of damage at a native village twelve miles away to the east. We struck camp the next morning and arrived at this village about noon, and found that the elephants had destroyed the entire mealie crop, and so driven the natives from their location, which was now quite deserted. In the evening of the following day I hit off the spoor of a big male elephant at about 5.30 p.m., and came up to him half an hour later. He got our wind, however, and although we saw him going off in the wood there was no chance of a fair shot. We followed the spoor for an hour, but as he had our wind all the time we gave it up and returned to camp. The following morning, half an hour after daylight, I was again on his spoor, now accompanied by eight boys and all conveniences for sleeping the night. My hunting boy held the spoor, often very difficult to follow, until 4 p.m. (9½ hours). About mid-day I came upon a magnificent sable antelope grazing in open veld between wood. It was a fine opportunity for telephoto work, but on turning round for my camera, with special telephoto attachment, I found to my chagrin that the boy who carried the camera had "got tired" and returned home. It only weighed 25lbs., so there was no excuse. He received corporal punishment two days later for his confounded laziness. I stalked and killed the sable. Before death the animal deliberately charged the boys with head lowered and scattered them in all directions, and the help of the ·303 was again requisitioned for the *coup de grâce*. I had to be content with a photo of this fine animal from a small camera, which was always carried in case of accidents to the other.

At 4 p.m. we came up to the elephant in thick wood. He had met a lady. I had managed to get within sixty yards when he caught sight of me, and was just off when he received a blow from the ·450 in the forehead. As he turned he got another from the ·303 in the neighbourhood of the heart. He went off strongly, and we followed

his spoor for about two miles, when we came upon him in thick wood at one hundred yards, with head towards us and apparently awaiting our arrival. As we caught sight of him he started in our direction. A solid ·303 turned him, and altering his direction he passed me diagonally at about forty yards, and in doing so received three more from the ·303 in the cardiac region. He fell dead one hundred yards farther on. He turned out to



Bull Elephant.

be a magnificent animal of almost record height for these parts, standing 10ft. 10in. at the shoulder, or only two inches less than the famous Jumbo. Unfortunately he had only one tusk. This, however, weighed fifty pounds. The accompanying photograph gives a fair idea of the size of this six tons of elephant. An anatomical matter of some interest, I should imagine, is this very common condition amongst African elephants of only one tusk erupting. This is far more common than neither tusk erupting, which, however, I am told is a fairly common occurrence amongst cows. There was fortunately water half a mile from the dead elephant, so I made camp thirty yards away from him, and that night was greatly disturbed by the cries and moans of hyænas and the barking of jackals. The noises made by the former are certainly some of the weirdest in nature, and on a dark night in an African wood do not encourage peaceful sleep. As I lay awake that night I was inclined to liken certain of these noises to something intermediate between the growling of an angry dog and the long-drawn-out cry of an hysterical woman. Redpath arrived the next morning and brought the satisfactory news that yesterday he bagged two small elephants about two hours' walk away from me. He was on the way there to bring in the tusks.

Two days later we returned to the main Ndola road, crossed it, and struck N.N.W. for a prominent bend in the Kafue river. At a small village on the way we heard that an old man-eating lion had killed three natives during the past few months. I "night-watched" for him with a bait of elephant meat, parts of which had been dragged from all directions for a mile round. On a bed of green bushes I reclined on a wobbly structure twenty feet high (used by the natives for storing grain and other things out of the reach of white ants) that livelong night, but the lion did not put in an appearance. Two days later on a small river, where we camped for a few days in the hope of securing buffalo, the spoor of which was plentiful, I had an interesting interview with a lion, which perhaps is worth recording in more detail. At 5 p.m. I was returning to camp, which was four miles distant, with four boys, having recently given up spooring two bull elephants, when, on coming round a bend in a swampy part of the river, from the wood edge, with the field glasses I saw at four hundred yards two lions sitting on the open grass, some thirty yards from a wood, on the other side of the river. They, a lion and lioness in the prime of life, were sitting, sphinx-like, placidly watching some antelopes a long way in the distance on our side of the river. Taking my hunting boy with me, I gave the other three implicit instructions that they were not to move, on any account, until I called them. Through these boys disobeying orders a disaster was narrowly averted. I went back a hundred yards and crossed the swamp out of sight of the lions, and coming carefully along the edge of the wood, with the wind in my favour as it was, it should have been possible to have approached within thirty yards of the animals. The lions were nowhere to be seen, as I carefully inspected from the wood the site on which I had last seen them. At this moment the male lion bounded along in the wood, at about one hundred yards off, and I missed him with the ·303. Following him up in the wood, with the boy behind me carrying the loaded ·450, presently I could make out his outline in the long grass at a hundred and twenty yards. I fired with the ·450, and struck him in the hip, but only scored a flesh wound, and foolishly, without reloading this rifle (which had no magazine), handed it back to the boy. On receiving the bullet he roared and tossed about for some time before settling down at the foot of a tree in a crouching position, facing me. I saw that the magazine of the ·303 was charged, and on approaching nearer could see with the field-glasses his exact position, and the glare of enraged eyes was plainly visible. Steadying myself against a tree and taking careful aim, I fired,

and this bullet grazed the upper part of his back as he crouched flat on the ground. Without more provocation he came down for me at a terrific pace, and with no appearance of being wounded. At about thirty yards from me, as he came on, I missed him, and before recharging the breech he was at the tree, and past it. I managed to spring behind the tree as he came level with it, and, since in this movement the helmet left my head some yards and the field-glasses deserted their case, and were found later many feet away, doubtless I moved with some agility. Before he could regain his footing on suddenly pulling up, when missing his quarry, I got a ·303 soft nose through the shoulder and out below the last rib on the other side. He fell dead three feet from the muzzle of the rifle, and one of the photographs shows our respective positions at the time of the finale. The boy stood at ten yards as the beast charged, and did his utmost, as he afterwards explained, to get the empty rifle to do the needful, even to the extent of "blowing down the barrel." As the beast charged, the three boys, who should have been four hundred yards away on the other side of the river, and actually were some hundred yards behind me in the wood, bolted for dear life, and in doing so threw down a valuable telephoto camera. It turned out that they had deliberately crossed the swamp in full view of the lions, hence our finding the latter in the wood, instead of waiting to allow me stationary shots at thirty yards in the open. It was nearly dark at the death, and for the next two and a half hours, in inky darkness, with no moon, whilst I was waiting for Redpath to arrive with food and bedding, the lioness was prowling around at about thirty yards, and occasionally reminding us of her presence by a low growl. We made a small fire, and stood to arms by a big tree close to the dead lion, and no amount of persuasion would induce the boys to leave the tree and fetch more dry wood for the fire. During the night, after Redpath's arrival with many boys, and when our safety was assured by a strong "zareba," the lioness constantly reminded us of her proximity.

Two days after this adventure Redpath and I had an interesting but disappointing day with elephants. Having spent eight hours under a hot sun spooring two magnificent bulls, we came up with them at 4 p.m. standing under a big tree in company with a third. We wounded badly in the shoulder one carrying about one hundred pounds of ivory, and, although he went away badly lame, and ran in a semicircle round us, we were unable to get another shot owing to our two boys, who were carrying spare rifles, running in front and getting in the line of fire. Redpath reminded me kindly afterwards that the nature of my language on this occasion was forcible. It will not bear repetition. This was the only occasion on which we hunted in company, and as a general principle it is unsatisfactory.

Having shot two Burchell's zebras one afternoon, I returned the following morning and found they had been visited by leopards, hyænas, and jackals. A leopard had placed a big piece of lung in the fork of a tree some twelve feet high. During my absence for half an hour, when following the spoor of another leopard that had left the carcass carrying a large piece of meat, this animal returned to the zebra, ate a quantity of meat from the back, took his piece of lung from the tree, and departed. This was about 8 a.m., and, although I watched the carcass for another hour, being carefully concealed in a bush, he did not return.

On August 20th we arrived at the Kafue River, here about seventy yards wide. It is a beautiful river, with, in places, high banks overgrown with trees, long open reaches of shallow water, big pools and rapids. We made camp, and remained here for nine days, during which time we had excellent sport. In the river we each secured hippo, from which we manufactured shamboks. Redpath obtained a fine leopard, nearly seven feet long, which he came across eating a pookoo.

Redpath, Kirkman, Leopard and young Pookoo.

He got him through the shoulder-joint with the first shot, so placing him *hors de combat* at once. On the same day Redpath caught a young pookoo ewe, which lived with us as quite a pet for nearly a week, but condensed

milk gave her enteritis, and now her pretty little head adorns my hall in company with some twenty-five kinds of African big game.

In the river we caught many barbel, running up to twenty pounds in weight. When big they give quite good sport on a pike rod and line. We also shot several fine crocodiles, and in the neighbourhood of the river obtained several different kinds of antelope, also wart-hogs and bush-pigs.

At this camping-ground hyænas and jackals were plentiful, and one of the former in the middle of the night pulled a dried zebra's skin from off the top of our night shelter. With strychnine I poisoned a fine male hyæna and five jackals in one night. The hyæna's head makes a nice trophy, and the jackal's skins are quite pretty about the house.

After leaving the Kafue we struck S.E., and near a village named Capatashia each had good sport with eland. Redpath obtained a nice cow and a young bull one morning, and I had the luck to secure a cow with 30½-in. horns one evening, and the next morning a very fine bull. These are certainly the most shy of all African antelopes, and, although the biggest (an adult bull weighing as much as 1,200 lbs.), are perhaps the least tenacious of life. Both of these I secured with original wounds that a reed-buck or a pookoo would have smiled at. One of the latter I wounded in seven places, three of the bullets passing through the lungs and one smashing the hip before he succumbed. With a broken hip and three soft-nosed bullets in the chest he swam the Kafue, and only on receiving the seventh when in mid-stream did he cease swimming. Any one of these chest wounds would have caused an eland to "give in," or a lion to cease from troubling.

On our way back to Broken Hill we stayed three days at a reedy river named the Lukanga, and had sport with waterbuck, pookoo, roan, reedbuck, and sitatunga. We also had some exciting fishing and further opportunities of studying the habits of hippo. We returned to Broken Hill on September 7th, the last day having walked twenty-seven miles before 3 p.m., and on the day previous twenty-five miles. On the return train journey we spent three days at the Victoria Falls, and secured a good series of photographs.

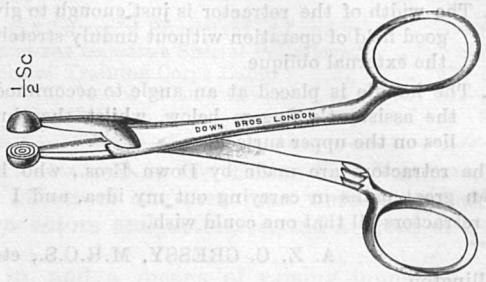
The photographs which accompany this article, and in which I appear, were snapped by my hunting boy after I had focussed the camera on a substitute.

In all we secured, on this trip, trophies of elephant, lion, leopard, zebra, wart-hog, bush-pig, hyæna, jackal, hippo, and ten different kinds of antelopes. I also obtained about 120 quite presentable photographs of landscapes and fauna, the latter including many telephoto snapshots of stationary and rapidly moving zebra and antelopes.

ALBERT H. B. KIRKMAN.

New Instruments.

Artery Forceps.



The difficulty of tying beyond the points of the artery forceps in deep situations led me to try a globular end to the Spencer Wells', and I can now, after a fair trial, attest to the great advantages attained, as follows:—

1. They do not take up more tissue than other forceps.
2. The Surgeon can tie off the artery by himself and take off the forceps afterwards.
3. Once the ligature is beyond the greatest circumference of the globular end it must tie off properly if it is tied tight enough, and the certainty of this saves much time in operating.
4. They will pick up the smallest and most fragile artery.
5. The circular grooves on the inner surface give a very firm hold.

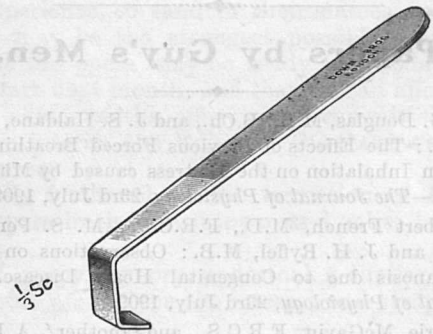
Messrs. Down Bros. have taken great pains in carrying out my idea, and have produced an excellent pair of forceps.

A. Z. C. CRESSY, M.R.C.S., etc.

Wallington,
1st July, 1909.

Appendicitis Retractors,

For the Splitting Operation for Appendicitis.



As I consider the splitting operation in appendicitis the only justifiable one, I have thought the above

modification in the form of the retractors obviates one or two objections common to those in ordinary use.

1. The part introduced in the wound is always in the same plane as the muscle retracted, consequently the latter is not lacerated.
2. The width of the retractor is just enough to give a good field of operation without unduly stretching the external oblique.
3. The handle is placed at an angle to accommodate the assistant's fingers below, whilst the thumb lies on the upper surface.

The retractors are made by Down Bros., who have taken great pains in carrying out my idea, and I find the retractors all that one could wish.

A. Z. C. CRESSY, M.R.C.S., etc.

Wallington,
1st July, 1909.

Change of Address.

H. B. Carlyll, M.A., M.B., B.C., from Guy's Hospital to the East London Children's Hospital, Shadwell, E.

Harold Chapman, L.D.S. Eng. from 115, Harley Street, W., to 20, Queen Anne Street, Cavendish Square, W.

R. M. Rendall, L.R.C.P. Lond., M.R.C.S., from Maiden Newton, Dorset, to 101, Forest Road, Nottingham.

G. Bellingham Smith, M.B. Lond., F.R.C.S. Eng., from 24, St. Thomas's Street, S.E., to 13, Queen Anne Street, Cavendish Square, W.

T. Turner, M.B., B.S. Lond., from the General Infirmary, Sunderland, to Holmwood, Milnthorpe Road, Eastbourne.

R. M. Wormald, L.D.S. Eng., from Guy's Hospital, to 1, Pavilion Buildings, Brighton.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Papers by Guy's Men.

C. G. Douglas, M.B., B.Ch., and J. S. Haldane, M.D., F.R.S.: The Effects of Previous Forced Breathing and Oxygen Inhalation on the Distress caused by Muscular Work.—*The Journal of Physiology*, 23rd July, 1909.

Herbert French, M.D., F.R.C.P.; M. S. Pembrey, M.D., and J. H. Ryffel, M.B.: Observations on Cases of Cyanosis due to Congenital Heart Disease.—*The Journal of Physiology*, 23rd July, 1909.

Laurie McGavin, F.R.C.S., and another: A Report on 250 Cases of Spinal Analgesia by the use of Stovaine-Glucose Solution.—*The Practitioner*, August, 1909.

Major C. E. Pollock, R.A.M.C.: Bacilluria.—*Journal of the Royal Army Medical Corps*, August, 1909.

J. H. Ryffel, M.B.: A New Method for the Estimation of Lactic Acid in Urine.—*The Journal of Physiology* 23rd July, 1909.

Appointments.

Civil.

CARLYLL, H. B., M.A., M.B., B.C., has been appointed Resident Medical Officer of East London Children's Hospital, Shadwell.

HUNT, ERNEST, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Kingsteignton District by the Newton Abbot (Devon) Board of Guardians.

Naval and Military.

Staff Surgeon J. G. WATT, R.N., is appointed to the *Hermione* on recommissioning.

Captain H. D. PACKER, R.A.M.C., has taken over the duties of Embarkation and Disembarkation Medical Officer in Plymouth Garrison.

Captain T. C. LUCAS, R.A.M.C., is seconded for service on the Staff of the Governor of Bombay (dated August 1st, 1908).

Sport.

Lawn Tennis.

GUY'S 2ND VI. v. ROYAL DENTAL HOSPITAL.

Played at Honor Oak on July 28th, and won by the Hospital by six matches to three.

G. C. Covell and N. Reader beat R. W. List and S. Sherwell, 4–6, 6–4, 6–3; beat L. Blackmore and N. Rockey, 6–3, 6–1; beat R. Matthews and R. G. Farrington, 6–1, 6–4.

H. L. Griffiths and F. C. Hunôt lost to List and Sherwell, 6–3, 6–8, 4–6; beat Blackmore and Rockey, 7–5, 6–3; beat Matthews and Farrington, 10–8, 6–3.

W. S. Digby and W. Smyth lost to List and Sherwell, 4–6, 4–6; lost to Blackmore and Rockey, 3–6, 6–2, 2–6; beat Matthews and Farrington, 6–3, 11–9.

Births.

GLOVER.—On July 19th, at 25, Highbury Place, N., the wife of Alison Glover, M.D., D.P.H., of a son.

PIPER.—On July 30th, at Gullane, Kingston Hill, Surrey, to Mr. and Mrs. Stanley Piper, a daughter.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

VOL. XXIII., No. 552.] AUGUST 21, 1909. [SIXPENCE.

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ON a Tuesday evening some six weeks ago a Concert was held in the Æolian Hall. It was, as most of us know, a considerable success: the efforts of our own men were very kindly supplemented by the appearance of several well-known actors and actresses, and a profit of over forty pounds accrued.

This concert, however, was given as a prelude to, and a means of raising funds for the support of an even more ambitious programme. Few, we think, can remember a time when the Hospital was better supplied with dramatic and musical talent than it is now, and it was hoped to present at various suburban places of entertainment, and possibly even at a West-end theatre, one of the Gilbert and Sullivan operas. The principal acting parts throughout the tour were to be sustained by Guy's men, the whole enterprise was to be managed from Guy's, and the profits were to go to the Hospital funds, upon which, as the scope of this Institution's usefulness increases, the drain grows, and will grow more heavy year by year.

The time has now come for the realisation of the project. We have, thanks to those who supported the concert, a working balance almost sufficient to stage the opera we have decided upon —"The Gondoliers." A committee, under the energetic presidency of Sir Alfred Fripp, with a business manager, a secretary, and a musical director, to watch over the various parts of the enterprise, has been formed. Shortly, it is hoped, it will be possible to commence making overtures for the hire of halls, and to start the necessary rehearsals and musical preparations.

But no project of this kind can be carried through by the work and energy, however able and disinterested, of a few men. It is necessary, if the scheme is to be successfully advanced, that the interest and support of every Guy's man, past and present, and of all the large numbers of the general public, to whom Guy's has ever been an honoured name, should be actively enlisted on our side. We want enthusiasm, inside the Hospital and out, and we ask all of you who read this to do what you can to carry the scheme through.

The ways in which you can help are manifold.

We have an immediate need for ladies who are willing to take part in the production. Even the principal female parts have not been allotted as yet, and the chorus of a Sullivan opera must needs be a fairly large one. There must be ladies into whose hands the GAZETTE comes who can help us, and many old Guy's men must have relatives and friends whose assistance in this way would be of considerable value.

We also want, though the need is not so acute, men who will volunteer to play. We want everyone who has a voice, or who has had dramatic experience, to send in their names, so that there may be many to select from, and that the cast may be the strongest possible that the Hospital and its friends can put out. It is hoped that the opera may be ready for production early in November. This means that rehearsals must start next month, and that we can afford to waste no time before the company is got together. The names of the officers and committee will be published at the earliest possible moment, but in the interim the Editor of the GAZETTE will be glad to forward letters and inquiries to the proper quarter.

The success of the scheme would also be materially furthered by the formation of Local Committees, who could secure a representation of the opera in their own town, and enlist locally kindly feeling and support for the project.

It is now ten years since the Disguysed Minstrels, of happy memory, undertook a similar tour. We wish to emulate the success they achieved, and to arouse among you the interest and sympathy they found in 1899.

Few relaxations are more enjoyable than amateur theatricals, and the pleasure which those of you who appear for us, and those who assist us in other ways, will derive will, we are sure, be enhanced by the knowledge that you are performing a real service to the poor and the stricken through the medium of the Alma Mater we all love so well.

Passim.

WE have to announce that the opening meeting and annual dinner for the next season of the Pupils' Physical Society will be held on Thursday, October 7th. As most of our readers are aware, this function is the only one of an official character inaugurating the Winter Session at the Guy's Medical School. The guest of the evening, who afterwards gives an address at the meeting, is to be Sir Hector Cameron, the well-known surgeon of Glasgow, who was associated with the pioneer work in modern antiseptic surgery as assistant to Lord Lister. Our Treasurer, Mr. Cosmo Bonsor, will again take the chair at the dinner, and Dr. Frederick Taylor will preside at the subsequent meeting.

THE Governors have appointed Miss L. V. Haughton, Matron of Sir Patrick Dun's Hospital, Dublin, to the post of Matron rendered vacant by the resignation of Miss Swift. Miss Haughton was trained here, and on completion of her three years became Sister in charge of Patience and Samaritan, and, later, Sister in Astley Cooper. She then received the appointment of Matron at the Dublin Hospital, which stands in the front rank of such institutions in Ireland. There she maintained the nursing staff in a high state of efficiency, and introduced several important changes in the system of training. As Hon. Secretary of the Irish Matrons' Association, also, she advanced the interests of Irish nurses in general. Her departure from Sir Patrick Dun's Hospital is sincerely regretted by the staff with whom she has been working. Here we shall welcome her as we would welcome anyone taking up the important and responsible post of Matron, but with an added enthusiasm, inasmuch as she is already one of us, having been trained here. It must also be a source of much pleasure to Miss Swift, in relinquishing the post to which she has devoted so much energy, to know that she is succeeded by a nurse of her own training school.

IN his presidential address to the Home Counties' Branch of the Medical Officers of Health, published in *Public Health*, Dr. F. E. Fremantle—who, by the way, is a former editor of this journal—put forward a strong plea for the increased representation of the medical profession in Parliament. It is certainly strange that, whereas the Church is represented by the Bishops in the Upper House, and the Bar by no less than 171 barristers and solicitors in the Lower, the third ancient profession should be represented only by twelve M.P.'s. In Dr. Fremantle's opinion the representation of the medical profession in the House of Commons can only be improved by largely increasing the total number of members, and he advocates this step on this as well as on general grounds. The Public Health is a department of statesmanship which is gaining increased importance, and will still possess it when, perhaps, the need for a Minister for War has happily passed away. Apart from the public health, the presence of medical men in Parliament should be of great value on many points connected with the treatment of the young, the aged, the criminal classes, and many other matters.

ON some points in his address we cannot join issue with Dr. Fremantle. In the first place, he insists on the inevitability of the party system, and says, "It is useless for any individual man to think of playing a prominent part in Parliament unless he becomes a loyal adherent of one of the leading parties in the House." The party system is such an unscientific machine that we should regret to see the medical M.P., who, if anyone does, should represent science in the House, committed to it. The medical politician must deal with facts, and not with platform-facts, so that we fear Party Politics will have little to do with him.

THEN, again, Dr. Fremantle deprecates a medical man going into Parliament as a representative of his profession as such, on the ground that "he is looked upon at once as being a trades-unionist, battling for the rights and privileges of his profession." But who, if not the medical man himself, will protect those rights and privileges? Obviously no one; and Dr. Fremantle himself must admit that they are at times sorely menaced, and in need of protection Dr. Fremantle's own view is that, in this matter, medical men "should work as much as possible behind the scenes beforehand, and in quiet; for by the time a matter has reached the stage of public debate it is probably past mending . . . It may be for lack of this policy of moderation in defending professional rights that certain medical representatives in the House have failed to gain the influence in general medical questions that was expected of them." The whole address is very suggestive, and a special interest attaches to it in view of the fact that its author is himself a prospective candidate for the Rotherhithe division. Quite irrespective of party considerations, we hope to

see him some day gain the seat and represent Rotherhithe, the medical profession, and, incidentally, Guy's, in the House of Commons.

Under the heading "Quis custodiet custodes?" quite a storm in a teacup has been raised in the holiday season columns of the *Times*. "Patient" wrote his (or her) experiences of three doctors—two of them practitioners of "some eminence" in England, and the other a "rather famous" specialist on the Continent—each of whom, in taking a patient's temperature, took his thermometer from its case, inserted it in the patient's mouth, and replaced it in the case without any attempt at cleansing. "I do not know," the letter goes on, "whether afterwards the thermometer was washed, but I should imagine that this might be difficult to arrange on a round of visits. And at any rate the repeated fouling of the inside of the case must nullify the effect of any such tardy purification. *Quis custodiet custodes?* If we cannot depend upon our doctors to show reasonable regard for cleanliness, we can have but small hope of the security to be afforded by antiseptic precautions." For a few days following other correspondents wrote of like experiences, one suggesting that the patient should pointedly ask for soap and water to cleanse the thermometer, another that the delinquents should be "drummed out of the profession," and so forth. Yet another suggestion was that the doctor should carry no thermometer at all, but make each patient have his own.

Personally, we think "Patient's" experience must have been as exceptional as it was unfortunate. Even though we knew nothing of bacteria and disease conveyed by them, common decency and cleanliness would surely suggest some purification of the thermometer between mouth and mouth. "A.W.G." has written to us his views on the subject as follows:—

> "I would beg young men never to take a temperature without asking for a glass or basin of water and a towel. Let these become a mentally associated trio so that the association may become an automatic habit. One thing I have repeatedly noticed, viz.: that *the mother or wife* in attendance will remember the water and towel, after you have on one occasion asked for them, and will supply them to you without any demand from you, or if she should fail, she will apologise for her forgetfulness, and will admire you for being so particular. Someone may say "What a rotten thing to write about," but it is far more rotten to see such a letter as "Patient's" in a public newspaper, and still more disagreeable to feel the smart of it, through being one of the medical fraternity oneself."

Pass List.

University of London, July, 1909.

First Examination for Medical Degrees.—Inorganic Chemistry, Physics and General Biology.

F. C. S. Broome. | †H. L. Hitchings.
*C. H. Gould. | J. York Moore.
H. P. Whitworth.

* Distinction in Biology. † Distinction in Physics.

The following Students, who took a portion of the Examination under Old Regulations, have now completed it:—

Inorganic Chemistry.

F. V. Bevan Brown.

Physics.

S. S. B. Harrison. | D. M. MacManus.

Biology.

S. H. Robinson.

Second Examination for Medical Degrees.—Part I. Organic and Applied Chemistry.

J. R. Barrow-Clough. | J. A. Ryle.
G. D. Eccles. | E. D. Scott.
G. S. Miller. | C. Sherris.
C. E. Petley. | *A. J. E. Smith.
C. S. L. Roberts. | A. Wills.
H. C. Rook. | O. R. L. Wilson.

* Distinction.

Part II.

D. A. Davies. | G. E. Genge-Andrews.
W. S. George.

Royal College of Physicians of London.

Admitted to the Membership on Examination.

A. H. Miller, M.B., B.C. Cantab.

Final Conjoint Examination, July, 1909.

The following should be added to the list given in our last issue:—

Medicine and Surgery.

C. D. Roberts. L. Bromley. H. L. Attwater.

Midwifery.

T. J. Killard-Leavey.

Surgery.

*T. R. Harvey.

* Denotes completion of examination.

Diploma in Public Health.

H. B. Bolus, M.B., B.C. Cantab.
T. E. Holmes, M.D., B.C. Cantab.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Proof!

Sir,—A patient yesterday said to me, "I am sick of doctors, you can quite believe what a lot I have had when I tell you *that I have lost eleven children.*"—Yours sincerely,

C. ARTHUR TODD-WHITE.

Leytonstone.

Duodenal Ulcer.

CLINICAL LECTURE BY Dr. HERTZ.

Gentlemen,—Until a few years ago, our knowledge of duodenal ulcers was derived from a study of the clinical history of patients, who were found after death to have a duodenal ulcer. As a result of those investigations, the most important of which were done here by Sir Cooper Perry and Dr. Shaw, it was believed that duodenal ulcer was a rare condition. In sixty-six years at Guy's there had been only 70 cases in which duodenal ulcer was found post-mortem. It was also believed that duodenal ulcer occurred only with one-twentieth the frequency of gastric ulcer. A study of the clinical history of the cases led to the conclusion that about one-third had no symptoms of ulcer at all, until they died from some intercurrent disease. It was, moreover, believed that the diagnosis of duodenal ulcer was very uncertain, and that it was impossible to be at all sure, in any given case, whether a patient had a duodenal or gastric ulcer. Pain occurring rather late after meals, especially if it was situated on the right side more than the left, and melæna occurring as a more frequent or severe symptom than hæmatemesis, were supposed to point to an ulcer being duodenal.

In 1901 Mr. Moynihan of Leeds wrote the first surgical paper on the subject, describing seven cases on which he had operated. In the next five years he operated on about 100 additional cases, and in the last two and a half years on 135 more. At the present time he is operating upon at least two cases of duodenal ulcer a week. The same surgical activity is reported from Rochester, Minnesota, by the Mayos, who have operated on more than 200 cases, and to a slightly less extent by other surgeons in the provinces and in Scotland, but, curiously enough, not in London or on the Continent.

It is difficult to reconcile these surgical statistics with those derived from the post-mortem room. If it is true that a duodenal ulcer can be recognized with certainty at an operation, then a man, who has the opportunity of operating on 250 cases in eight years, will be in a much better position for studying the symptoms of duodenal ulcer than one who has to content himself with the study of collected reports, written by many different people over a period of many years. If the conclusions reached by surgeons with regard to duodenal ulcer are correct, then we shall have to modify our ideas very considerably with regard to its frequency and its symptoms. I have recently, on two occasions, visited Leeds in order to see Mr. Moynihan operate. As a result of conversations with him and of seeing operations on six cases of duodenal ulcer, which I had examined before the operation, I have come to some definite conclusions, which differ considerably from my ideas on the subject before I visited Leeds.

With one exception, in every case in which duodenal ulcer had been diagnosed, there was something abnormal in the duodenum. In some cases there was a swollen red mass, which was obviously the outer surface of an active ulcer, but in the majority of cases there was simply a definite white scar, which is certainly not normally present, and sometimes there were also adhesions. But a diagnosis was never made from the presence of adhesions alone. Is this white scar the outside of an open ulcer, or is it simply the remains of a healed ulcer? In these cases the duodenum is hardly ever opened, and the scar is not removed, so one cannot tell. But I think there can be no doubt that in all of these cases there is, or there has been, active ulceration of the duodenum. As many of these cases were operated on in the quiescent period, when hunger pain was no longer present, I think that the scar is frequently simply a result of the earlier presence of an active ulcer, which has now healed. The important conclusion is that the presence of a definite scar, which can be readily seen by onlookers, is evidence that ulceration has probably been present, even if it is not actually present at the time, in the duodenum, and that the conclusions drawn by a surgeon, who has operated on 250 cases of this sort, are worthy of the closest attention.

To what extent, then, is it necessary to alter our opinions about duodenal ulcer? In the first place, the condition is infinitely more common than was formerly believed, but not, I think, as common as the 250 cases in a single surgeon's practice would lead one at first to suspect, for in sixty-six years at Guy's there were only 70 cases seen post-mortem. When a surgeon has a reputation for the treatment of one particular condition, naturally cases come from all parts of the country to be operated upon by him. Moreover, I do not think there is any evidence that duodenal ulcers are particularly common in Leeds; of the six cases I saw operated upon, not one was a resident in Leeds.

The surgical statistics of Moynihan and the Mayos show that duodenal ulcer is slightly more common than gastric ulcer. Is that

correct? I do not think it is: the fallacy is due to duodenal ulcer being less easily cured by medical means, so that a larger proportion of duodenal than of gastric cases go to the surgeon. But the surgical statistics show that the old idea of a proportion of one duodenal to twenty gastric ulcers is quite wrong; a more likely estimate is that duodenal ulcers are about one-third as common as gastric ulcers. The early surgical statistics pointed to duodenal ulcers being less common than gastric; this was due to the fact that it is not always easy at operations to recognise where the stomach ends and the duodenum begins. I have seen two cases diagnosed during the operation as perforated gastric ulcers, which proved at the post-mortem to be duodenal ulcers. Mistakes should not now occur, as it has been proved that the pylorus can always be recognised by a thick vein which clearly marks its position.

Surgeons who operate frequently for duodenal ulcer say it has definite and characteristic symptoms, and the cases I have seen at operations confirm that view. The first great point is that the symptoms come on in attacks, which last a few weeks, or perhaps two or three months. Between the earlier attacks there is a period of complete freedom from symptoms. The attacks are brought on by various conditions, particularly cold, and they are much more frequent in winter than in summer. In connection with this, a point which I learnt from Dr. Mantle of Harrogate a year ago, is borne out by almost every case I have seen since, namely, that the vast majority of people with gastric and duodenal ulcer suffer from cold extremities, and in many cases the onset of the vasomotor disturbance immediately precedes the onset of digestive symptoms. They will often tell you that when the pain in the stomach is worst, the feet feel very cold, and putting the feet into warm water is one of the best ways of relieving the pain. Attacks are also brought on by worry, and occasionally by sexual activity, judging from what patients have told me.

Two to four hours after each meal there is a feeling of pain, or perhaps only slight discomfort, in the abdomen, a little above and to the right of the umbilicus. The bigger the meal, the longer is the interval before the pain begins. The pain comes on, therefore, longer after a meal than in gastric ulcer, and it is definitely relieved by certain things. Taking food or drink or an alkali always relieves it. Some patients teach themselves to vomit, as they find that they get relief in this way, and washing out the stomach has the same effect. The fact that the pain is at once relieved by food, led Moynihan to call it "hunger-pain."

There is usually also some tenderness over the painful area, and when the pain is severe, the right rectus is firmly contracted. Cutaneous hyperæsthesia is found much less frequently than in gastric cases. There is generally a good deal of flatulence associated with the pain, and the patient often relieves himself by eructating gas, either alone or with a little acid fluid. It is probable that the flatulence is simply secondary to the pain, which leads to an excessive flow of saliva, so that the patient is continually swallowing air; it is important to remember that aërophagy of this sort is a much more common cause of flatulence than is abnormal fermentation. These patients are nearly always constipated, not because of pyloric spasm, but because they take a diet which contains too little stimulating food, as the patient finds that fruit and green vegetables, which increase the secretion of gastric juice without neutralising any of the acid, make the pain worse. Vomiting is rare, unless there is some complication, such as pyloric obstruction from cicatrisation of the ulcer. Most of the patients have a good appetite, and in the early stages there is generally no loss of weight.

The clinical picture I have described has been called by various names, such as nervous dyspepsia, acid dyspepsia, and in recent years hyperchlorhydria. The most enthusiastic abdominal surgeons entirely deny the existence of these conditions, which they consider to be nothing else than duodenal ulcers. The great fallacy in the surgeon's standpoint is that patients with these symptoms do not go to a surgeon, but to an ordinary medical man—who cures them. It is only the patients, who have remained ill for a considerable period, in spite of medical treatment, who are sent to the surgeon; if these patients have duodenal ulcers, it is no proof, as some surgeons would have us believe, that the infinitely larger number of patients with similar symptoms, who are permanently relieved at an early stage of their illness by medical means, also had duodenal ulcers. The cases, which come into the hands of the surgeon, typically give a history of recurrent attacks of hunger-pain. I was fortunate to be present at the operation on a patient, who is, I believe, the only individual who has ever been operated on during his first attack of hunger-pain. Had a duodenal ulcer been found in him, I should have been almost persuaded that every patient with hunger-pain has indeed a duodenal ulcer. The patient, a man of 26, had been ill for nine months, and had had hunger-pain practically con-

tinuously for all that time, and Mr. Moynihan had no doubt that he had a duodenal ulcer. But at the operation no sign of a duodenal ulcer was found. So it is clear that a single attack of hunger-pain does not necessarily mean duodenal ulcer, though, perhaps, it indicates a condition which will lead to ulceration of the duodenum in the absence of suitable treatment. Mr. Moynihan has operated in one case during the second attack, and on many during their third and fourth attack, and in those cases an ulcer was almost always found. But many patients, if treated medically during their first or second attack of hunger-pain, are permanently relieved. As a first attack of hunger-pain does not necessarily mean a duodenal ulcer, are we correct in calling it hyperchlorhydria? I do not think we are, because, in the first place, many cases of hyperchlorhydria discovered by chemical analysis are not associated with gastric symptoms. Moreover, 0·5 per cent. of free hydrochloric acid is more than is ever present in hyperchlorhydria, but we have found that, if large quantities are poured through a tube into the empty stomach of normal individuals, no pain or discomfort is produced. Moreover, in the condition, which is often called hyperchlorhydria on account of the symptoms, an accurate analysis shows that there is frequently no excess of hydrochloric acid, and among a considerable number of cases of duodenal ulcer, which Mr. Moynihan has recently operated upon, there was in no instance excess of hydrochloric acid. The condition of hyperchlorhydria was discovered in North Germany, and there and everywhere else the symptoms were ascribed to the excessive hydrochloric acid, and the diagnosis of excessive acid has been constantly made from the symptoms alone without any gastric analysis. Quite recently it has been shown that the symptoms associated with and ascribed to an excess of hydrochloric acid in North Germany are less frequently associated with hyperchlorhydria in South Germany, the quantity of acid present depending probably on local differences in diet, and having but little connection with the gastric disorder. Probably similar variations in the acid would be found in these cases in different localities in England. Perhaps the best name to give to the condition is acid dyspepsia, as acidity—which is not necessarily excessive—has clearly something to do with the symptoms, because of their immediate relief by alkalies, and by vomiting, which removes the acid contents from the stomach.

What is the cause of the hunger-pain in duodenal ulcer? It has generally been thought to be due to the chemical irritation by hydrochloric acid, or to the mechanical irritation by food, when the acid chyme passes over the ulcer. We can, however, exclude hydrochloric acid from any direct share in it, because in half-a-dozen cases of gastric ulcer, in which the diagnosis was confirmed by operation, I found that the introduction of 0·5 per cent. hydrochloric acid by a tube into the empty stomach produced no discomfort or pain.

In order to decide whether the pain is caused by contact with the food, we must consider why the pain is delayed in cases of duodenal ulcer. It has been almost universally believed that the ulcer leads to reflex closure of the pylorus, which prevents the irritating gastric contents from reaching the duodenum. It was supposed that food only begins to enter the duodenum three hours after a meal. I have had the opportunity of examining one case of my own, and three cases of Mr. Moynihan's (two of which proved afterwards to be duodenal ulcers, the third being the case of first attack of hunger-pain already mentioned) by the X-rays after a bismuth meal, and I found that the stomach began to empty immediately after the food was given, although the pain only came on between two or three hours after the meal, when the stomach was found to be almost empty. Hence, mere contact with food cannot be the cause of hunger-pain. The pain appears to be associated with emptiness of the stomach, because it comes on when the stomach is almost empty, and it can be relieved by filling the stomach again. Moreover, the larger the meal and consequently the longer the time required to empty the stomach, the later will be the onset of the pain.

But there must be some other factor, as vomiting or washing out the stomach gives relief, although of shorter duration than that produced by taking food. The other factor must be associated with the presence of acid, which is removed by these means, and which is neutralised by alkalies; for alkalies relieve the pain, though they cannot greatly delay the emptying of the stomach.

In the vomiting of duodenal ulcer, uncomplicated by pyloric obstruction, very little food is brought up, the vomit consisting mainly of acid fluid. So the pain seems to be due to the secretion of gastric juice in an empty stomach; such secretion does not occur in the normal empty stomach, but only when an ulcer, either gastric or duodenal, is present. As the acid does not directly irritate the ulcer, it probably in some way causes painful contractions of the

duodenum or pylorus. The X-rays show that, when the stomach is emptied, it has a tendency to move towards the left, so that a pull is exerted on the duodenum and any adhesions between it and the surrounding structures; this may be an additional cause of pain.

We must next consider the cause of the recurrence of the attacks of hunger-pain. On this subject I am in complete disagreement with surgical writers. In typical cases the patient is entirely free between the attacks, for several months at a time, from all pain, whatever quantity or quality of food is taken, so that it is scarcely possible that an open ulcer can be present all the time. I think the white scar seen when an operation is done in the quiescent period represents a healed and not an open ulcer, and that the recurrent attacks are due to the ulcer breaking open again, or to the formation of fresh ulcers. In a considerable number of cases more than one scar has been found in the duodenum, and in three of the cases I saw there were four or five of these scars. The most striking case of all was that of a medical man, who was having very severe hunger-pain up to the time the operation was done. The external examination of the duodenum showed the presence of an ulcer which was red and swollen, and obviously still active, but there were three small white scars in addition. His age was thirty, and he had had attacks of hunger-pain since he was ten. It seems highly probable that the earlier attacks were due to the presence of ulcers which were now inactive, and were represented by the white scars, but that his recent pain was due to the red and active ulcer. When, under medical treatment, a duodenal ulcer heals, the conditions which produced the original ulcer may still be present. Hence, when the winter comes, either an old ulcer becomes active again, or a new one forms.

A symptom, which adds greatly to the certainty of diagnosis, when the existence of hunger-pain suggests the presence of a duodenal ulcer, is hæmorrhage, either as hæmatemesis or melæna. In a considerable number of cases, in which no obvious hæmorrhage has occurred, traces of blood can be found in the stools by chemical means; but careful dieting results in the rapid disappearance of the blood, whereas in cancer of the stomach the hæmorrhage is unaffected.

In healing, a duodenal ulcer may cause so much cicatrisation that obstruction is caused. In such cases the ordinary symptoms of a dilated stomach are added to those due to the duodenal ulcer itself. Dilatation in an early stage is most easily recognised by inflating the stomach: sodium bicarbonate and tartaric acid are given separately in water, and the greater curvature, which should not reach below the umbilicus, can then be percussed and often seen and palpated. I have seen a few cases, in which slight dilatation was recognised by inflation, and in which it was proved to be due to commencing pyloric obstruction by an X-ray examination, which showed that peristalsis was abnormally active, although quite invisible through the abdominal wall.

In rare cases cicatrisation of an ulcer causes obstruction of the common bile duct, and jaundice results.

According to Mr. Moynihan and his followers, there is only one treatment of duodenal ulcer, and that is by surgery. I am convinced that this teaching is erroneous, because it is quite common for people with the symptoms, which we now believe to indicate the presence of a duodenal ulcer or a pre-ulcerative condition, to get well with fairly simple treatment. If it were true that nothing but surgical treatment can cure a patient with a duodenal ulcer, then the ulcer should be present *post mortem*, if no operation had been performed, whatever was the immediate cause of death. In eight years Mr. Moynihan has proved the existence by operation of four times as many cases of duodenal ulcer as were found unhealed in 17,652 consecutive autopsies, and more than eleven times the number which were the immediate cause of death in sixty-six years at Guy's. Duodenal ulcer must therefore be fatal in an extremely small proportion of cases, and medical treatment must be capable of producing as permanent "cures" as surgery. Further evidence of the effects of medical treatment is afforded by the observations of scars of healed ulcers when cases are operated on in the quiescent period. It is often asked how the thick mass round a chronic ulcer can possibly disappear under medical treatment. But such a mass has been found to have completely disappeared when the abdomen has been opened several months after the performance of a gastro-enterostomy, and the actual effects of medical treatment are practically identical with what is supposed to occur after a gastro-enterostomy. Of course when the thickening is due to new-formed fibrous tissue and not merely œdema and round-celled infiltration, one cannot expect it to disappear by either medical or surgical treatment.

It is essential that the patient should be completely at rest in bed for the whole period of the treatment. I have already said that

nearly all these patients have cold feet and hands, and so these parts should be kept very warm. Then the teeth should be seen to, as insufficiently chewed food and the poisons swallowed from carious teeth or pyorrhœa alveolaris are quite enough to prevent the healing of an ulcer. I have never seen a duodenal ulcer in a patient whose teeth were in really good condition when the trouble began. It is absurd to say that a patient has had adequate medical treatment when he has only two carious stumps in his mouth, and yet I have seen such a patient operated upon for a duodenal ulcer. It is important to remove all possibility of septic absorption from the mouth, and, if necessary, to see that the patient has a new set of teeth.

The next point, and the most important of all, concerns the diet. The dietetic requirements for duodenal ulcer are the same as for a gastric ulcer. Hydrochloric acid has something to do with the production of gastric and duodenal ulcers, and with preventing such ulcers, when once present, from healing, as this type of ulcer only occurs where free hydrochloric acid is found. The first consideration is therefore to prevent free hydrochloric acid from being present at any time in the stomach. The food should produce a minimum of gastric juice, and should neutralise as much as possible of that which is secreted. It should also be mechanically unirritating, and it should contain the greatest possible nourishment in the smallest possible bulk. If you wanted to treat a patient with a chronic ulcer of the leg, you would not put him on a low diet; the more food you give, the quicker is the ulcer likely to heal. So it is with gastric and duodenal ulcers. Many of these patients have been nearly starved for a long time, and their nutrition is greatly impaired. But the bulk of the food should be small, because you do not want to distend the stomach, and the work it has to do in order to empty itself should be as light as possible. The two common methods of treatment—by rectal feeding, and by a milk diet—do not satisfy these conditions at all. The amount of nourishment gained from rectal feeding makes it hardly worth while employing it. Moreover, every time a nutrient enema is injected there is a flow of gastric juice, and there is nothing in the stomach to neutralise it, and even in complete starvation, periods of secretory and motor activity occur. Milk has undoubtedly certain advantages in the treatment of gastric and duodenal ulcers; it does not cause the secretion of a great amount of gastric juice because of the fat it contains, and much of the hydrochloric acid which is secreted is neutralized by its protein. But the acid is never completely neutralised, the diet is little short of starvation, and in most cases milk produces mechanically irritating curds. The ideal treatment is by means of olive oil. Oil inhibits the flow of gastric juice, the contents of the stomach being actually alkaline, when oil alone is given. It is not only mechanically non-irritating, but it is actually soothing; where there is spasm, oil is likely to diminish it. Lastly, it is far more nourishing than any other kind of food, as its heat value is more than double that of an equal weight of anhydrous protein or carbohydrate. Whilst on oil alone, patients sometimes put on weight; it is true that they are not in nitrogenous equilibrium, but that does not matter for a short time. Since I introduced the oil treatment two years ago, I have only found one patient who was unable to take it. The oil should be given every three hours during the daytime, beginning with half an ounce at a time and increasing quickly up to two ounces. The oil can be safely given immediately after hæmatemesis. In addition plenty of water, which should be slightly alkaline, must be given. The patient should be kept on oil alone until every trace of tenderness has disappeared.

If there has been hæmorrhage, no addition should be made to the diet until chemical tests show that every trace of blood has disappeared from the stools; then the oil should be partly replaced by cream, which contains much more fat than milk, so that experimentally it is found that one-fourth the amount of gastric juice is secreted in an hour when cream is given than when milk is given. If there is no return of tenderness, gradually add eggs, jelly and custard, and then pounded meat and chicken; or if the patient can be relied upon to chew it, the food may be given prepared in the ordinary way. Reserve until the last starchy and farinaceous foods, because they produce more hydrochloric acid than does anything else, and, unlike proteins, they do not neutralise it at all. When the diet is being increased, the oil should not be omitted, an ounce being given before each meal in order to keep the quantity of hydrochloric acid secreted as low as possible. The oil generally prevents constipation, but, if it is troublesome, the bowels should be opened by enemata.

When the patient is completely free from pain and tenderness, he should be allowed to get up. He should avoid alcohol and soup, and take very little sugar and no excess of starchy foods for many months, as they all produce a copious flow of gastric juice without neutralising any of its acid.

There is only one class of drug worth mentioning, and that is alkalies; the best is magnesia, which helps to open the bowels and at the same time neutralises the hydrochloric acid without producing any carbon dioxide, which would increase flatulence. It should not be given in prescribed doses at definite times, but a grain or two should be taken by the patient on his tongue, whenever he feels a little uncomfortable.

Modified treatment should be continued after the patient gets up, because it is necessary after the ulcer has healed to prevent a recurrence. The oil should be continued permanently before meals in doses of half to one ounce. Excess of sugar and starch should always be avoided, and alcohol, tea and spices should be used in strict moderation Food should always be thoroughly masticated. If there is any pain or discomfort a few hours after meals, a little magnesia should be taken in the manner I have described; some of it should be carried about by the patient. The hands and feet should be kept warm, and special precautions should be taken in this connection when the winter approaches.

With regard to surgical treatment, there are certain obvious indications, such as perforation, and dilatation of the stomach due to obstruction from cicatrisation. It is only by gastro-enterostomy that the latter condition can be relieved. Obliteration of the common bile-duct is also a clear indication for a cholecyst-enterostomy.

If the patient has had one very severe hæmorrhage, or repeated attacks of moderately severe hæmorrhage, I think an operation ought to be done. Hæmorrhage is a much more definite indication for operation in duodenal than in gastric ulcer, because the bleeding vessels are generally larger, and fatal hæmorrhage is more common from duodenal than from gastric ulcer.

The chief discussion concerns the large class of cases, in which there have been no serious complications. There may have been hæmorrhage, but not very severe, or there may be simply recurrent attacks of hunger-pain. If, in spite of treatment such as I have described, attacks of hunger-pain continue to recur, an operation should be done. But I do not think medical treatment will fail in many cases, particularly if the patient continues to be careful after recovery from an attack.

What is the operation, which should be done in these cases? Gastro-enterostomy has the effect of helping the ulcer to heal, in very much the same way as it does under medical treatment: the acid contents of the stomach are prevented from passing over the ulcer.

But gastro-enterostomy, so long as the food passes out of the stoma and not the pylorus, has the advantage over medical treatment in that it makes recurrence of the ulcer less likely, because, whatever other factors help, there is no doubt that contact with the acid gastric contents is necessary for the formation of an ulcer. It is therefore advisable to obliterate the pylorus by suturing the duodenal ulcer at the same time as the gastro-enterostomy is made, unless the ulcer has already caused stenosis.

What surgeons fear after a gastro-enterostomy is a jejunal ulcer, because it is so fatal and so difficult to treat. Some surgeons, therefore, now look upon excision of the duodenal ulcer as the ideal operation, instead of gastro-enterostomy. But such treatment is, in my opinion, quite irrational, because simple excision of the ulcer has no advantage over medical treatment, as it does not prevent the possibility of recurrence. The risk of a jejunal ulcer is so extremely small, that I am convinced that, if an operation is done at all, it should be a gastro-enterostomy, and that means should be taken to obstruct the pylorus.

Royal College of Physicians of London.

At a Comitia held on July 29th, the President, Sir Douglas Powell, Bart, K.C.V.O., announced that he had been requested by the Secretary for Home Affairs to nominate a delegate to represent this country at the International Medical Congress to be held at Budapest this year. He therefore nominated Dr. F. W. Pavy, who had already been requested to represent the College on this occasion.

The following gentlemen were appointed Examiners:—

Physics.—A. H. Fison, D.Sc.

Practical Pharmacy.—A. P. Beddard, M.D., E. I. Spriggs, M.D.

Physiology.—M. S. Pembrey, M.D.

Medical Anatomy and Principles and Practice of Medicine.—Sir Cooper Perry, M.D.

From the Gazette's Special Pathologist.

G.M.J., Alton.—No tubercle bacilli are detected in this specimen, which contains a little muco-pus.

F.W.M.P., Teignmouth.—This tumour is an adeno-fibroma of the breast, composed of distorted gland acini in young connective tissue. Much of the latter has undergone myxomatous degeneration. It is not malignant.

G.M.J., Alton.—No tubercle bacilli are detected in this specimen of sputum.

W.S.R., Boscombe.—This is an adeno-fibroma of the breast, composed of distorted and cystic gland-like acini in a fibrous tissue stroma. The latter is undergoing myxomatous changes. The growth is encapsuled and not malignant.

PATHOLOGIST.

Officers' Training Corps.

University of London Contingent.—The First Annual Camp.

FIRST WEEK.

The Officers' Training Corps encamped for the first time on Salisbury Plain from July 30th to August 13th. The whole contingent, with the exception of an advance party, paraded at Addison Road Station at midday on Friday, July 30th, and entrained for Lavington at 12.30. Guy's, together with St. Thomas', form Section "B" of the medical unit. We left the hospital in two bodies; the baggage with an escort of six men, at 9.30, the main body at 10. With the ease born of previous calculation, the latter was led by its officers to Moorgate Street, via the Bank, thence to Addison Road. Both parties reached the rendezvous before 12. On arrival at Lavington the contingent proceeded to West Down North, a distance of 7½ miles from the station; here the camp had been pitched by the advance party, which had spent four watery days preceding the arrival of the main body in preparing the ground. The baggage with its escort arrived on the scene about an hour later.

The tents were arranged in ten lines to accommodate one engineer company, six infantry companies, and three medical sections, between five and six hundred men in all. Each tent lodged six or seven men. In addition to these were the officers' lines, mess tents, canteens, quartermaster's and staff-sergeants' tents, orderly tent, etc. Little further was done on the first day than to bed down generally, partake of a somewhat riotous dinner, and become accustomed to military discipline in the form of the picket, which was unflinching in stowing everyone away for the night. There was little sleep the first night. Straw may compare favourably with feathers after a week's usage, but at first one longs for the feathers. The work of the following two days was by no means strenuous; in fact, it appeared at first that the medical sections at all events were considered unfit for hard labour, and were to be pampered lest they should mutiny. Colonel James, however, appeared on the scene on the Monday, and soon dispersed all ideas of this nature. The first week's work consisted of squad and company drill with the special work of each unit; there were no combined manœuvres during this week. The general routine of the day was as follows:—

6.30. Reveillé.
7.30. Breakfast.
8.30. Tent and kit inspection.
8.45. Parade and inspection, followed by drill until 10.30.
11. Lecture.
1. Lunch.
2. Practical instruction in special work of each unit
4.30. Tea.
7. Dinner.
10.15. Lights out.

The first day, Saturday, was spent, as far as the medical unit was concerned, in squad, company, and stretcher drill. An improvised Rugger match between B section and C section resulted in a win for the former, Guy's, by a goal and a try. Sunday was a slack day, church parade affording the only official occupation. Throughout the day bodies of troops poured in from the railway stations to the camps dotted over the plain. These formed a somewhat imposing spectacle; the London Scottish especially created enthusiasm amongst the spectators. An inspection of other camps in the vicinity showed that our site was comparatively excellent, which fact was evidently appreciated also by the general staff, who became our next-door neighbours. A few energetic members of our section spent most of the day in walking to Stonehenge; the rest were glad to seize upon a rain-storm as a conscientious excuse for their lack of archæological enthusiasm. The special features of Monday's labours were a lecture by Colonel James on field ambulance work, and practical instruction in tent-pitching.

In addition to the ordinary drills, Tuesday was spent in erecting a dressing station; we also had lectures on water supply, and were introduced to the inner mysteries of the dressing station supplies. On Wednesday we set up a tent division camp, and learnt all about its supplies; there were also lectures by Colonel James on field ambulance work, and by the Adjutant on map-reading. A field day was announced for Thursday, but the necessary horses failed to appear until the afternoon. The morning was spent, as usual, in company and stretcher drill, followed by a lecture on camp sanitation. In the afternoon there was a rehearsal for a contemplated review. The belated arrival of the waggon horses then enabled us to take the field.

Whilst the column was drawn up ready to set out for the scene of action, the officers mysteriously disappeared, and intense excitement was occasioned by the spread of the report that they would return mounted. The report proved well founded, as they shortly dashed up in a style that would have done credit to veteran troopers; the ordeal was borne exceedingly well. The column then set out under the command of Major Herringham, prompted by Colonel James. After marching for about a mile, an ideal dressing station was discovered in the shape of some old barns. Lieutenant Layton was left in charge with a dozen men, whilst the main body proceeded a mile further. Here a suitable collecting station was found, stretchers were removed from the waggons, and carried by the bearer squads to the imaginary firing line; the wounded—also imaginary—having been collected and returned to the waggons at the collecting station, they were driven to the dressing station, to which the bearer sections afterwards returned. With justifiable pride, Lieutenant Layton demonstrated the fruit of his labours in fitting up the station, and was left with his assistants to pack up, whilst the main body returned to camp for dinner. In the evening an officers' concert was held, which proved highly popular.

On Friday, at the end of the first week, about fifty men returned from camp. A photograph of our section was taken before breakfast. The departing body paraded at 10.30 and marched to Lavington under Captain Charles. The train for town left at one, and after stopping at every station reached Paddington at five.

For the first three days the weather was unsettled, but after this the sun poured down with unceasing energy. Perhaps the catering might have been improved with advantage; several complaints were made in this direction. A condition of semi-civilization in this respect invariably proves less acceptable than that of "roughing it" pure and simple. Hence the contractor, who is never more than human, becomes unpopular. However, on the whole, the first week under canvas proved a great success, especially as a first venture. This was largely due to the unfailing energy and tact of the Adjutant, Captain Egerton, and, so far as we were concerned, of our own officers, Captain Davies-Colley and Lieutenant Layton.

SECOND WEEK.

Those who were able to stay for the second week gained an added interest, for we were then carrying out in the field the lessons we had learnt during the first week on the parade ground.

On the Friday, Army Service Corps men having arrived early with horses, we started off with three ambulance and two general service waggons, and forage and water carts, and practised for the first time the whole work of a field ambulance with both its bearer and tent sections. On the Saturday, after some early morning squad drill, we learnt how to dig those things which are necessary to the proper sanitation of a camp—latrines, soak-pits, crematoria, urinals, a trench round a tent, and camp kitchens. As the sun was now getting very powerful, and the ground was hard chalk, this afforded some good strenuous labour.

In the evening the Medicals succeeded in defeating the Engineers and Infantry at Rugby football after a hard-fought contest.

On Monday the Infantry were set to attack a position with an imaginary enemy, and the field ambulance followed and carried back the wounded; after this hot work we were rather disappointed to see our wounded get up and march back to camp with the Infantry while we had to stay behind to strike our camp and re-load our waggons.

On Tuesday were held athletic sports in which the men of our section greatly distinguished themselves, as may be seen from the following results:--

Hundred Yards (scratch).—1st, Cadet A. B. Danby, "B" Section, Medical; 2nd, Cadet W. S. Hudson, "B" Company, Infantry.

Quarter Mile (scratch).—1st, Cadet A. B. Danby, "B" Section, Medical; 2nd, Cadet R. Aldwinckle, "D" Company, Infantry.

One Mile (scratch).—1st, Cadet R. H. Hodges, "A" Section, Medical; 2nd, Cadet R. Aldwinckle, "D" Company, Infantry.

Obstacle Race.—1st, Lance Corporal E. A. P. Brock, "A" Section, Medical; 2nd, Cadet J. R. Barrow-Clough, "B" Section, Medical.

Jockey Race.—Cadets J. R. Barrow-Clough and W. L. Webb, "B" Section, Medical.

Officers' Race.—Captain Egerton, Adjutant.

Relay Race won by "B" Section, Medical. Team:—Corporal H. C. Rook, Cadets W. K. Fry, A. B. Danby, C. W. Sparks.

Reveille Stakes.—In this competition five men lay "asleep" in a tent, and after the last note of the reveillé they had to rise, dress, strike the tent, fold their bedding, and fall in. Marks were deducted for each mistake made in the way the tent was folded, and in the way the uniform was put on, while time was also taken into account.

Our section alone sent in two teams, one of St. Thomas' men, and one of Guy's men. The latter proved successful, and won with a good margin of marks. Team:—Lance-Corporal C. A. Gatley, Lance-Corporal M. Pern, Cadet T. Y. Moore, Cadet A. C. Hancock, Cadet F. C. Hunôt.

Tug-of-War.—For a challenge cup presented by the officers. Won by "B" Section Medical. Team:—Lieutenant T. B. Layton, Corporal W. Robinson, Lance-Corporal C. A. Gatley, Lance-Corporal M. Pern, Cadet A. R. Danby, Cadet A. C. Hancock, Cadet A. F. Potter, Cadet H. P. Warner.

Wednesday was given over to inspection by General Sir Frederick Stopford, K.C.M.G., commanding the 2nd London Division. "B" Section pulled by hand the forage cart, which weighed nearly a ton and a quarter, and the water cart. This they did over the hills in the broiling sun, and earned the congratulations of Major Herringham, who was in command of the Medical unit. In the evening a voluntary compass march was organised. The Medicos again showed their prowess by arriving first, and coming nearest to the point that they were expected to find. Thursday was given up to striking camp and to examining the men in the practical part of Certificate "A." On Friday, reveillé sounded at 4 a.m., and at 8.30 the contingent started back to London.

In considering this, the first camp of the University of London Officers' Training Corps, the following points must be remembered:—First, that the officers as well as the men were learning their work, and therefore could not give that instruction which in future years they will be able to give; secondly, that both they and the Military Education Committee were new to the organisation of a camp; and thirdly, that there was but short time to prepare for camp, as we were only starting the corps at a time when arrangements for camp should have been begun. Considering these facts, this camp was an undoubted success, yet no one denies that there was room for improvement, and that another year we shall do much better. So far as our own section was concerned, all the Guy's men were delighted to have got to know and to have worked with those men from St. Thomas's Hospital, who are our companions in "B" Section of the Medical unit.

The Importance of Eugenics.

Paper read before the Guy's Physiological Society by by T. I. Bennett.

Mr. Chairman and Gentlemen.—The papers read before this Society may be divided roughly into two categories—those written by men wishing to increase their knowledge of some subject in an examination syllabus, and those chosen on account of the interest of the subject to the author himself. The present paper belongs to this second class, and I cannot help feeling that its subject must be of interest not only to physiologists, but to all those who are in any way occupied by the community and mankind as a whole.

So many people have said to me lately, "What are Eugenics?" (as who should say, "What are Keats?") that I feel that I had better begin by definition. Mr. Francis Galton, the founder of the science, defines National Eugenics as "The study of agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally." From this you will see that this science is a sister, or perhaps daughter, to Physiology. I now propose to discuss briefly those national characteristics which, judging by knowledge of the part, tend to allow the survival of a race; then I shall show you something of our present position as regards these characteristics; and, finally, I shall suggest what our future policy should be from the point of view of one interested in Eugenics.

The two great factors which lead to the survival or disappearance of a nation are the number and the quality of its inhabitants; it is hard to decide which is the more important of the two. Considering the numerical factor, the sacking of Rome by the Gauls, and the Teutonic conquest of Western Europe, at once occur to one; it seems to me that it was force of numbers rather than individual qualities that decided these conquests; or, to take a much later instance, the defeat of England in the first Soudan campaign was due solely to this factor. On the other hand, it is easy to find many instances of races, weak in number, conquering by the quality of the people; the Indians at Plassey outnumbered Clive's men by hundreds to one, and the odds against the Greeks in the Persian Wars were scarcely smaller, yet in neither case was the numerical factor strong enough to ensure victory. But a series of defeats is not necessarily followed by the disappearance of the conquered race: the Normans were in a comparatively short time absorbed by the English, and India is scarcely more English to-day than it was before the time of Clive. A well-developed people, few in number, may easily defeat a large nation that is poorly developed, but I think we may conclude that there is no such thing as conquest until the victors exceed the defeated in number. Many people consider that these waves of conquest do not concern the present, but they must continue in some form as long as Nations feel the pressure of increasing population; national isolation is impossible for any people not holding land which is too poor for its growing rivals. European wars may be dying out, but the greatest war in the world's history is only just over, and the declining birth-rate of Europe finds no reflection in Asia.

It is quite possible that, after another century or two, the world will be populated, to the fullest extent to be obtained, with a maximum of individual development; but people who, for this reason, advocate an immediate check on the growth of the population, seem to me to overlook the fact that the Oriental nations continue to increase, and that they have already gained a foothold on territory that was formerly occupied by white people alone.

I now come to the second part of my paper, in which I am going to try to show you something of what is at present known of the distribution and inheritance of physical and psychical qualities.

Most people nowadays know a little about Weissman's theory of the Continuity of the Germ Plasm, or they at any rate believe that the individual is built up from units derived from a previous generation; but beyond this generalisation few have gone.

Recent work by biologists, and particularly by Mr. Galton and the other leaders in the science of Eugenics, makes the nature of inheritance capable of being demonstrated with some exactitude.

In the first place, it has been proved that the normal distribution of any quality or group of qualities follows the mathematical law of normal frequency. I can best explain this law by referring you to Table 1. You see here 10,000 variates, whose variations are due to the combined action of many small and different causes, whatever may be the causes, and whatever the object in which the variations occur. What has been done in the table is this: the mean of the 10,000 variables has been found, and the objects have then been grouped into a number of classes according to the amounts by which they exceed or fall short of this mean. Suppose 10,000 shots were fired at a bull's eye; you would find the mean distance of the bullet marks from the centre; this would give you the position of mediocrity, which is marked M in the table; then take the bullet furthest away from the bull's-eye; let us suppose, for the sake of argument, that the mean was five inches from the centre, and the furthest bullet ten inches from the centre, you now have all the bullets distributed, some less than five inches from the bull's-eye, and some a distance between ten inches and five inches; divide the bullets up into classes according as they are one inch or less, not more than two, but more than one inch; not more than three, but more than two, and so on, distant from the point of mediocrity. These classes are indicated in the table by the letters R, S, T, U, V, r, s, t, u, v, according as they exceed or fall short of mediocrity. You will now find

TABLE 1.—*Normal Distribution* (*to nearest per* 10,000 *and per* 100).

	−4°	−3°	−2°	−1°	M	+1°	+2°	+3°	+4°	Total.
	v and below	u	t	s	r	R	S	T	U	V and above	
	35	180	672	1613	2500	2500	1613	672	180	35	10,000
	2									2	
	2	1	7	16	25	25	16	7	1	2	100

The average height of adult males was nearly 5ft. 8ins., and the value of their "normal talent" was very nearly $1\frac{3}{4}$ins.

The table gives a general but just idea of the distribution throughout a population of each and every quality taken separately as far as it is normally distributed. It does the same for any group of normal qualities; thus, if marks for classics and for mathematics were severally normal in their distribution, the combined marks gained by each candidate in both these subjects would be distributed normally also, this being one of the many interesting properties of the law of frequency.

Variations follow the normal law of frequency whenever they are due to the combined action of many small and different causes, whatever may be the causes and whatever the object in which the variations occur. It holds true with approximate precision for variables of totally different sorts, as, for instance, stature of man, errors made by astronomers in judging minute intervals of time, bullet marks around the bull's-eye in target practice, and differences of marks gained by candidates at competitive examinations.

that you have your bullets arranged in numbers approximately the same as those given in the table; that is, of your 10,000 bullets, 2,500 are less than one inch further away from the bull's-eye than is M (in our case M was five inches), 1,613 are more than one inch, but less than two inches further, and so on, and on the other side of the position of mediocrity you see similar figures, only in this case, of course, the 2,500 in class R are less than one inch closer to the bull's eye, and so on. Of course we might have made many finer sub-divisions, but the bullets would have obeyed the same law—there would have been a large number just above, and the same number just below, mediocrity, a smaller number slightly further away on each side, and so on. The reason for it is the same as for the law that if you toss a penny sufficiently often, it will come down as many times heads as it does tails; in either case it is quite impossible to make a prediction concerning a particular case, but it will always come true if sufficient cases are taken.

Now as this law of frequency applies to all variates whose variation is due to the combined action of minute and various causes, we should expect it to hold true of human qualities, and that it does so has now been proved beyond all question. The simplest example to quote is perhaps stature; the mean height of adult males has been found to be nearly 5 feet 8 inches, and for the table given above one degree represents $1\frac{3}{4}$ inches; that is to say, in 10,000 men you will find 2,500 between 5 feet $9\frac{3}{4}$ inches and 5 feet 8 inches, and the same number between 5 feet $6\frac{1}{4}$ inches and 5 feet 8 inches, and so on.

The law has been proved for all manner of physical qualities, such as girth, length of carpal bones, and cephalic index. Moreover, there is no doubt that it applies with equal truth to mental characters, though it is obviously difficult to group, say, the intelligence of 10,000 men in such a manner as to make the table clear; but the fact that it applies exactly to marks gained by candidates in competitive examinations is, I think, sufficient proof. Now this law applies not only to single characters, but to any group of normal characters; if, for example, marks for mathematics and for classics were severally normally distributed, the total marks gained by each candidate would also be normally distributed. This being so, we should expect the law to apply to any such a general group of qualities as goes to make up what we call a citizen. And in this connection you will, I think, find Table 2 of interest. It is taken from Mr. Galton's "Huxley" Lecture of 1901, and is a re-arrangement of a statistical table prepared by Mr. Charles Booth.

Mr. Booth classified 1,000 average London men into the groups given; the figures on the extreme left are those

TABLE 2.—*Comparison of Mr. Booth's classification of all London with the Normal Classes.*

Nos.	Mr. Booth's Classes.		Approx.	Re-sorted.	Approx.	Nos.	Normal Classes
97	H	All above G	100	100	100	89	T and above
200	G	Lower middle	200	150	150	161	S
	F	High-class labour, above 30/- per week ...		50	250	250	R
382	E	Regular standard earnings from 22/- to 30/- per week	400	200	250	250	r
227	D	Regular earnings under 22/-	200	50	150	161	s
	C	Intermittent earnings, improvident, poor		150			
94	B	Casual, very poor	100	100	100	89	t and below
	A	Criminals, loafers, etc.					
1000			1000		1000	1000	

The two columns headed "Nos." give respectively the numbers per thousand in Mr. Booth's and in the normal classes.

Mr. Booth emphatically declares that his classes cannot be sharply separated from one another.

giving the actual numbers in each group. These numbers Mr. Galton has approximated in the next column. Mr. Booth distinctly says that no sharp distinction can be drawn as to where his group C (say) ends, and his group D begins, so that in re-sorting the figures, as he has done in the fourth column, Mr. Galton has not taken great liberties; the reason for the re-sorting is to get the figures arranged on either side of mediocrity, and not to have a large class actually at mediocrity as

TABLE 3.—*Descent of qualities in a population. (The difference between the sexes only affects the value of the unit of the scale of distribution.)*

Conditions.—(1) Parents to be alike always in class; (2) statistics of population to continue unchanged; (3) normal law of frequency to be applicable throughout.

Per 100 Fathers (or Mothers).			2		7	16	25	25	16	7	2		100	
Per 10,000 " "			35	180	671	1614	2500	2500	1614	672	180	35	10,000	Totals.
Names of Classes.			v	u	t	s	r	R	S	T	U	V	Sons (or daughters)	
Sons of 35 Daughters	{Fathers Mothers}	of class V						1	6	12	10	6	35	
180	"	U				4	4	20	52	61	33	10	180	
671	"	T				7	44	150	234	170	57	10	672	
1614	"	S			6	57	253	512	509	224	47	5	1613	
2500	"	R		3	42	248	678	860	510	140	18	3	2502	
2500	"	r	3	18	140	510	860	678	248	42	3		2502	
1614	"	s	5	47	224	509	512	253	57	6			1613	
671	"	t	10	57	170	234	150	44	7				672	
180	"	u	10	33	61	52	20	4					180	
35	"	v	6	10	12	6	1						35	
Total 10,000 Fathers (or Mothers)			34	168	655	1623	2522	2522	1623	655	168	34	10,004	
				2	7	16	25	25	16	7	2			
" 100 "														

Mr. Booth has. The next column gives the re-arranged approximate numbers, and is followed by a column giving the numbers that should have been obtained

according to the law of normal frequency; I think you will agree that the correspondence is remarkable.

I am next going to discuss the inheritance of these qualities, and, again, I shall try to make it clearer by means of a diagram (Table 3). This table, which is also from Mr. Galton's "Huxley" lecture, shows the descent of qualities in a population when (i.) the parents are alike in class, and (ii.) the statistics of population continue unchanged, and (iii.) the normal law of frequency applies throughout. It has been assumed, for the sake of simplicity, that one parent gives rise to one child.

Perhaps the most important fact shown by this table is Filial Regression. The law of filial regression was first put forward by Mr. Galton; it is to the science of Eugenics what Darwin's work on Evolution is to Biology. Stated briefly, it says that when any parent differs from the mean of the stock, the offspring will differ from that mean by a lesser amount than did the parent; or in other words, that when the parents differ from the normal, the children will, on the average, regress towards the normal.

Taking an instance from our table, it will be seen that the children of parents in class T are distributed among classes s–v, but that the bulk of them lie in class S; there has been a marked regression towards mediocrity.

The figures here given have been corroborated by many thousands of actual measurements of physical characters, such as height, girth, length of skull, etc.

Again, it will be seen from this table that the children of the parents differing most widely from the mean are themselves greatly above or below the average. Thus, of the 34 children in class V, 6 come from parents of class V, and 10 from parents of class T; but whereas 35 parents in class V produce 6 children in that class, it takes 671 parents in class T to produce 10 V children.

I have said that the figures in this table have been corroborated by physical measurements; I might have added that psychical measurements amply justify the same application. Here we have the same difficulty of demonstration that I mentioned in connection with the distribution of psychical characteristics. Moreover, people cling very hard to the tradition that the sons of wise men are generally fools; it is by no means so. There will be the usual regression, but of the 35 sons of the 35 V parents there are 6 in class V, and only 1 in class R, where, by the way, he is still on the right side of mediocrity.

Anyone doubting the inheritance of ability should consult Mr. Galton's book on "Hereditary Genius," published thirty years ago, in which he gives a huge number of examples of the inheritance of ability in all forms of talent. The table I have here (Table 3A), was published in a recent work on the relatives of 207 Fellows of the Royal Society, by Galton and Schuster; the relatives given are all "noteworthy,"—a general term which the authors have applied to all such persons whose "achievements in all branches of effort rank among the members of any profession or calling as equal at least to that which an F.R.S. holds among scientific men;" it is applied, for instance, to all whose biographies appear in the Dictionary of National Biography, or the Encyclopædia Britannica. On this classification, less than one per cent. of the general population is "noteworthy," so that the explanation of these results, except by the inheritance of ability, is a hard task.

TABLE 3A.—*Number of noteworthy kinsmen recorded in 207 returns by men with title F.R.S.*

[The epithet "noteworthy" is applied to achievements in all branches of effort that rank among the members of any profession or calling as equal at least to that which an F.R.S. holds among scientific men; it is applied to all whose biographies are in the Dictionary of National Biography, or Encyclopædia Britannica.

Kinship.	Numbers recorded.	Kinship.	Numbers recorded.
fa.	81	fa. fa. fa.	11
bro.	104	fa. me. fa.	2
fa. fa.	40	me. fa. fa.	5
me. fa.	42	me. me. fa.	1
fa. bro.	45		
me. bro.	52	fa. fa. bro.	12
fa. bro. son	30	fa. me. bro.	2
me. bro. son	19	me. fa. bro.	6
fa. si. son	28	me. me. bro.	2
me. si. son	22		

The returns were not sent by an average group of F.R.S., so should be made to apply to the mean of 207 and 467, *i.e.*, to 337.

One per cent. of generality are noteworthy.

From the table we find 81 noteworthy fathers as against 3·37 fathers of generality; 99 noteworthy first cousins as against 4×3·37 first cousins of generality.

Expectation of noteworthies of kinsmen of F.R.S against generality:—Father, 24 times as great; brother, 31; grandfather, 12; uncle, 14; first cousin, 7; great great grandfather, 3½.—"Noteworthy Families," Galton and Schuster.

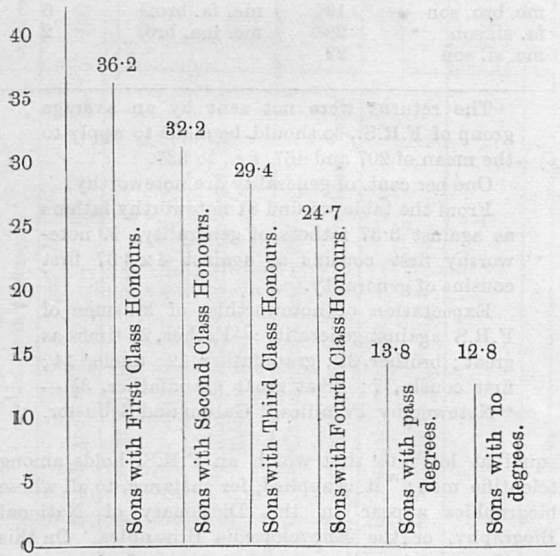
The contractions employed are lucid, if ludicrous; they were found convenient in collecting the work, and I have quoted them direct from the book. "Fa" stands for father, "me" for mother, "bro" for brother, and "si" for sister. It will be noticed that female relatives are omitted; this had to be done on account of the extreme difficulty of estimating "noteworthiness" in women.

This table is prepared from only 207 out of a total 467 Fellows, in order to guard against the possibility of the 207 being a selected group of Fellows. Let us suppose that these results were taken from 337 Fellows—that is, the mean of the actual number and the total number—even after this allowance we see that 337 Fellows have between them 81 fathers classed as "noteworthy,"

whereas for the general population there would only be 3·3 such fathers in the same number; therefore the proportion of "noteworthy" fathers for these men is twenty-four times greater than for the general population; similar figures are given for the other relatives, the whole forming a striking proof of the inheritance of ability.

Table 4 is, perhaps, of even greater interest in this respect; it is compiled from the Oxford class-lists of 1860–92. Mr. Schuster and Miss Elderton, of the Galton Eugenics Laboratory, made a complete list of all those fathers and sons who had been at Oxford between the years 1860–1892; they arranged the figures in groups, showing the class of degree taken by father and son respectively, and this table gives a summary of some of their results. The vertical columns stand for the

TABLE 4.—1860–92.



From the Oxford class lists.

The heights of the vertical lines show in what percentage of cases the fathers have taken either first or second-class honours. The diagram is intended to show that the percentage of fathers who obtained this degree of distinction diminishes with some regularity as one passes downwards from the sons with first-class honours to those with no degrees.

different classes of honours taken by the sons, and the figures at the top of each column show in what percentage of each class the fathers obtained first-class or second-class honours. Thus, of the sons obtaining first-class honours, 36·2 per cent. had fathers who took first or second-class honours, whereas of the sons obtaining pass degrees, only 13·8 had fathers obtaining first or second-class honours. I think the diagram shows clearly that the percentages of fathers who obtained this degree of distinction diminishes with some regularity as one passes downwards from the sons with first-class honours to those with no degrees.

In order to explain the second table on this sheet (Table 4A), it is necessary for me to say something

TABLE 4A.

	Honours, Classes I. and II.	Honours, Classes III. and IV. Pass degree. No degree.	Totals.
Fathers ...	160	318	478
Sons ...	348	1633	1981
Totals ...	508	1951	2459

The correlation coefficient calculated from this by the "contingency" method was found to be ·29.

From a similar series of tables the coefficient was calculated by this and the "fourfold correlation" method, and the following conclusion drawn:—"If we consider unity to be the measure of perfect resemblance, and nothing to be the measure of no resemblance, by disregarding minor differences and speaking somewhat broadly, we may say that degree of intellectual similarity between father and son, as indicated by the degrees which each took, is ·3, or nearly one-third.

Correlation between father and son (*vide* Biometrika, vol. ii., p. 357).

Stature	·514
Span	·454
Length of forearm	·421
Mean	·463
Oxford class lists	·312

The most certain reason for the error is that when the correlation coefficient between two variables is calculated, the nearer the measured value of each is to its true value the higher the value of the coefficient will be, provided always that the errors in the two variables are independent of one another.

From "The Inheritance of Ability," by Schuster and Elderton, being vol. i. of the Memoirs of the Francis Galton Lab. for Nat. Eug.

concerning "correlation"; if there be two series of variates, and if it is found that members of the first series increase or decrease, when members of the second series increase or decrease, then the two series are said to be "correlated"; the exact measure of the

correlation is expressed by what is known as the correlation coefficient; this is a fraction between 0 and 1, and is such that the closer the correlation between the two series, the nearer will the fraction be to unity; thus, for the right and left femur in man, the correlation coefficient is found to be ·96, from which fraction we deduce that if a thousand right femurs be classified into an array (*i.e.* in a similar manner to the variates in Table 1), the thousand corresponding left femurs may be classified into an almost precisely similar array. For "strength of pull" and "stature," the correlation coefficient is only ·27, from which we may deduce that if a number of men be classified according to their strength of pull, and also according to their stature, the correspondence between these two factors in each individual will be small. Putting the matter in a simpler form, if a man has a long right femur, the chances of his left femur being long also are very great, but if a man is very tall the chances of his strength of pull being similarly great are small. The method of working out the correlation coefficient for any two factors involves rather advanced mathematics, into which I have not time to enter at present, but the coefficient can be worked out according to several methods, and any results which I give you have been carefully checked.

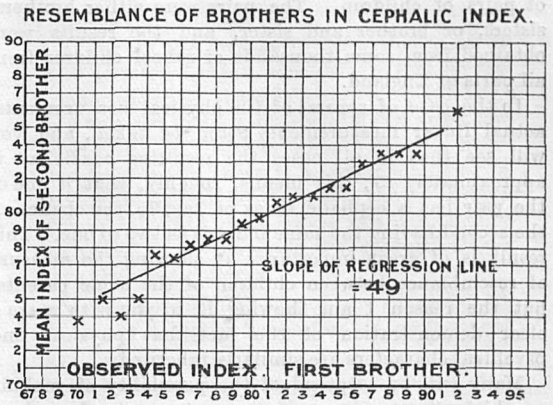
TABLE 5.

Inheritance of the Physical Characters.

Character.	Correlation.		
	Brothers.	Sisters.	Brother & Sister.
Health	·52	·51	·57
Eye colour ...	·54	·52	·53
Hair „ ...	·62	·57	·55
„ curliness ...	·50	·52	·52
Cephalic index ...	·49	·54	·43
Head length ...	·50	·43	·46
„ breadth ...	·59	·62	·54
„ height ...	·55	·52	·49
Mean ...	·54	·53	·52

Mental Characteristics.

Character.	Correlation.		
	Brothers.	Sisters.	Brother & Sister.
Vivacity	·47	·43	·49
Assertiveness ...	·53	·44	·52
Introspection ...	·59	·47	·63
Popularity ...	·50	·57	·49
Consciousness ...	·59	·64	·63
Temper	·51	·49	·51
Ability	·46	·47	·44
Handwriting ...	·53	·56	·48
Mean ...	·52	·51	·52



Explanation of graph of cephalic indices.—It is worked out from tables giving cephalic indices of 1,982 pairs of brothers.

Taking, for example, the boys with cephalic indices between 74 and 75, they had brothers the arithmetic mean of whose indices was 77·45. This is the phenomenon of regression towards the general population mean (78·9) as discovered by Francis Galton.

In this way the straight line is plotted; it is a typical regression line. If it had a slope of 1 in 1, the brother of 74·5 would have a mean brother of 74·5; if it had no slope at all, the brother of 74·5 would have a brother like the mean of the general population. In the one case we have absolute resemblance, in the other no resemblance at all. The actual degree of resemblance, our brothers being equally variable, is measured by the steepness of this regression line. In our case that steepness is ·49, almost ·5 or 1 in 2. That is the measure of fraternal resemblance in brothers for cephalic index—the correlation between brothers, as we term it.

This correlation coefficient is found to be practically the same for all physical characters measured, *e.g.*, stature, span, cubit, eye colour, head measurements, and when the psychical characters were measured they were found to give the same coefficient.

In measuring psychical characters tables were obtained showing thousands of pairs of brothers and sisters classified, in ability, for instance, under such heads as (i.) quick, intelligent, (ii.) intelligent, (iii.) slow intelligent, (iv.) slow, (v.) slow dull, (vi.) very dull.

Checked by asking several teachers to classify 50 children. Results, same in 85 per cent., different in 10 per cent.

In further illustration of the inheritance of physical and psychical characters, I have here (Table 5) some tables of results found by correlating various characters

of pairs of children. The pairs were either brothers, sisters, or brother and sister, and the results were obtained from some thousands of school children from all parts of England.

In the case of several of the physical measurements, actual linear measurements could be taken, and you will see that in all cases the resulting coefficient is approximately ·5; this means, roughly, that if one of the pair has a cephalic index of, say, 75, the chance of the second having the same index is as two to one. This result is of great importance as showing the measure of resemblance between children of the same parents, but the reason I am showing it to you is to make a clear demonstration of the fact that physical and psychical characters are similarly inherited.

Many will be sceptical of the possibility of making anything like an accurate measurement of such a character as "ability." This is how it is done. The teachers were asked to classify each child under one of the following heads: (i) Quick Intelligent; (ii) Intelligent; (iii) Slow Intelligent; (iv) Slow; (v) Slow Dull; (vi) Very Dull. In the case of three large schools, the children were first classified by the Science teacher, a month later by the Mathematical teacher, and later still by the teacher of Classics, and it was found that in 85 per cent. of the cases the results were the same, 10 per cent. of the cases were different by one class, and in 5 per cent the difference was greater.

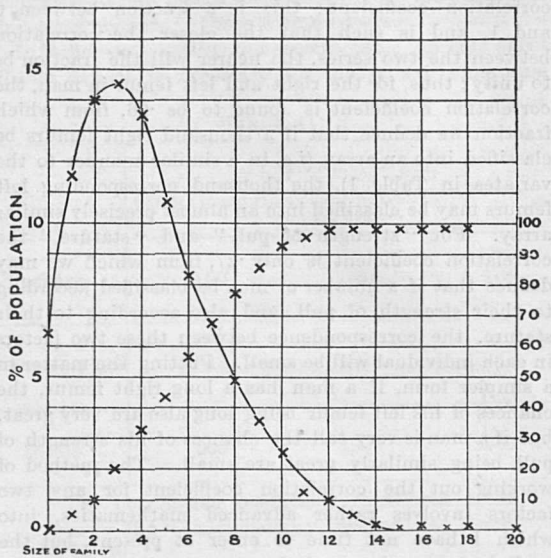
Now from an arrangement such as Table 4A you can work out a correlative coefficient, and, as such a table gives you a result almost as accurate as when you have exact linear measurements to deal with, I think it must be admitted that the evidence in favour of mental and physical characters being similarly inherited is overwhelming.

I now wish, in the final portion of my paper, to draw your attention to a few facts which demonstrate the importance of National Eugenics to the State.

The first great fact is that one-quarter of the married population of the country, or one-sixth of the adult community, produces upwards of 50 per cent. of the succeeding generation. The proof of this lies in Table 6. The ascending and descending curve is the curve of Fertility for Anglo-Saxons. The ordinate gives the percentage of the married population, and the abscissa the size of the family. You see that about 6·5 of the population have no children at all, 14·4 per cent. have an average family of 2·5, 8·2 per cent. have families of 6, and for larger families the percentage dwindles rapidly.

The second curve is the curve of Integral Fertility, in which the ordinate gives the percentage of children due to families of, and less than, the corresponding abscissa. Thus, from the second curve we see that 32 per cent. of the total number of children born come from families of four children or fewer, and we find from the first curve that such families are produced by more than 60 per cent. of the married population. The result is, as I have said, one quarter of the married population, or one-sixth of the adult population, produces half of the next generation.

TABLE 6.—*Curve of fertility in man. Anglo-Saxons.*



Calculated from full family records of 4,390 families, by Karl Pearson, "Chances of Death," 1897.

From this curve may be calculated the fact that one-quarter of married population, or one-sixth of adult community, produces one-half of next generation.

Ink crosses give the curve of integral fertility, ordinate gives the percentage of children due to families of and less than the corresponding abscissa. Thus from this latter curve it is seen that 32 per cent. of all children born come from families of four and less, and from first curve it is seen that families of four and less are produced by 60 per cent. of married population.

Forty per cent. of married population produces 70 per cent. of children.

These curves are taken from Professor Karl Pearson's "Chances of Death;" they were worked out some years ago, but have since been corroborated by other workers.

Now you see at once how important it is that this one-sixth of the adult population should be drawn from the better rather than the worse stocks. Returning for a moment to Table 3, it is obvious that if the infertility is proportionally distributed among all classes, the mean of the race will not deteriorate, but what if the classes from R to V are relatively less fertile than classes v to s? It is clear that there will soon be grave national deterioration. And that the best stocks are less fertile is, I fear, at the present day, beyond doubt. Here in Table 7 are some figures from the Census of 1901, and the Report of the Registrar-General of the same year. The four columns of figures give respectively the birth-rate per 1,000, the number of paupers relieved per 1,000 on January 1st, 1901, the number of professional

men per 1,000 occupied males, the female domestic servants per 100 females, in the several districts.

The third column gives a very fair measure of the more intelligent stock, and the fourth a measure of the amount of comfort, or luxury, in the different districts.

I am sorry that I selected the paupers as one of my columns, for, being taken for one night only, it can give only a rough estimate of the poverty in the districts; a much better example, and one which was accessible, would have been the number of pawnbrokers in each district, or the percentage of child labour. But the results are the same; wherever there is a large amount of luxury, or a large proportion of professional men, as in Hampstead or Kensington, there the birth-rate is lowest; wherever the pawnbrokers are most numerous, or the percentage of paupers is highest, or the proportion of child labour is greatest, there the birth-rate is highest. Nor is the high birth-rate compensated by a high death-rate; the proportion of survivors in the bad stocks still far outweighs the better stocks. Here are some coefficients worked out, with great care, by Mr. David Heron; the minus sign before a coefficient means that the correlated things vary inversely. You will see that the coefficients do not differ appreciably with the ages of the wives, showing that postponement of marriage is not a very big factor in accounting for the infertility of the best stocks. Nor is this infertility of the better stocks an hereditary character, for Mr. Heron has clearly proved that the relation between inferior status and high birth-rate, and *vice versa*, has practically doubled during the last 50 years.

There can be no doubt that the use of preventives is the great cause of this ominous condition; preventives have only been in general use for about thirty years, but their effect on the birth-rates of the civilised nations is already remarkable.

It is becoming very fashionable to talk about Eugenics, but I find that what is discussed is almost invariably *Negative Eugenics; this is that branch of the science* which considers means of eradicating undesirable elements from the general stock. There is, undoubtedly, a huge field before us in this direction, and the propagation of lunatics and epileptics is already a grave danger; but this side of the science seems to me of small importance when compared with the imminent danger that artificial alterations of fertility have brought upon us.

TABLE 7.—*Compiled from* (i.) *the Report of the Registrar-General for the year* 1901; (ii.) *Census for* 1901.

By David Heron in the First of the Drapers' Company Research Memoirs on National Deterioration.

Metropolitan Boroughs.	Birth-rate per 1000.	Paupers relieved per 1000 on Jan. 1st.	Professional men per 1000 occupied males.	Female Domestic servants per 100 females.
Battersea and Wandsworth	16·94	16.40	44·45	12·94
Bermondsey ...	21·86	56·30	9·85	4·18
Bethnal Green	22.74	28·00	6·78	3·56
Camberwell ...	17.76	31·45	32·21	8·73
Chelsea ...	14·97	35·68	38·92	25·36
Fulham ...	18·27	13·02	34·73	10·93
Hammersmith	16·69	14·91	37·35	10·96
Hampstead ...	13·52	8·98	82·94	33·08
Kensington ...	14·64	20·90	67·04	32·66
Lambeth ...	18·05	23·20	35·60	10.65
Paddington ...	15·31	12·03	53·26	24·00
Poplar ...	21·85	37·80	10·26	4·90
St. Pancras ...	16·32	29·97	32·35	10·10
Stepney ...	23·99	28·52	11.99	5·31

Correlation of Birth-rate and	Birth-rate based on Wives aged 15–54.	Birth-rate based on Wives 20 and upwards.
Domestic servants per 1000 females	−·802	−·801
Professional men per 1000 males...	−·781	−·783
General labourers per 1000 males...	+·517	+·518
Pawnbrokers per 1000 males	+·618	+·627
Deaths under 1 year per 1600 births	+·500	+·506

Mr. Heron's conclusions:—

> As far as the present investigation goes, it demonstrates, I think, conclusively that for the London districts there is a very close relationship between undesirable social status and a low birth-rate. In districts where there is overcrowding, where there is a superabundance of the lowest types of labour, where the percentage of child-labour is great, where infant mortality is greatest, there the wives of reproductive ages have the most children.
>
> Where there is more culture and education, as shown by a higher proportion of professional men, where there is a higher percentage of domestic servants, where the pawnbrokers, etc., are fewer in number, there the birth-rate is least.
>
> Nor is the higher birth-rate compensated by the higher death-rate. The net fertility of the lower status remains higher than that of the superior status, and the relation between inferior status and high birth-rate has practically doubled during the last fifty years. This is not due to postponement of marriage, as the second table shows.

I am constantly meeting, and reading papers by, people who are anxious not to restore the fertility of the better classes, but to reduce the birth-rate of the lower to their own low level.

Now it is, I think, quite unpractical to talk of prohibiting the use or sale of preventives, Man is, after all, the most ingenious of animals. But we should, without delay, attack the causes of prevention.

It must be remembered that a class which prevents conception from desire for luxury, or from fear of the natural discomfort arising from child-birth, is hardly a desirable class; it is a class of small civic worth. But I think the great cause of prevention is not love of luxury; it is actual poverty. The middle classes may be short-sighted in not recognising that children are the best form of life insurance, but they are certainly called upon to pay very high rates. Free education there may be; but to ask a man of small income to feed and clothe a large family, and at the same time to pay the same rates as his childless neighbour, is to expect an extra-ordinary degree of civic conscience in him. If the State wishes for children it must cease to put the burden of taxation upon those with large families. I see no reason why an income-tax should not be levied with a certain percentage remitted for every child born; in this way one of the most potent causes of national deterioration would be removed.

I shall have to close this paper without even referring to the work, of immense national value, that lies before those engaged in studying Eugenics in the direction of ascertaining the nature and possibility of eradicating heritable disease; but I hope that what I have said may, in some measure, enable you to realise the importance of this science.

Nursing News.

MATRON'S OFFICE.

On July 30th, Miss L. Bonser, who was Sister of Patience and Samaritan Wards from October, 1906, to April, 1909, and has since been acting as Medical Night Sister, left the Hospital to take up her duties as Sister-in-Charge of the Government Hospital, Nicosia, Cyprus. Miss F. Finnis, who completed her three years' training in January, 1908, and has since been on the Private Nurses' Staff, has been appointed Probationary Surgical Night Sister.

On June 1st, Nurse Watkins left the Hospital on completion of her three years' training, and Probationer Kerr was appointed to succeed her as Head Nurse in Naaman Ward.

On July 17th, Nurse I. Taylor, Head Nurse in Astley Cooper Ward, Nurse Tilbury, Head Nurse in Charity Ward, and Nurse Hulbert, Head Nurse in Addison Ward, left the Hospital on completion of their three years' training. Probationer Dudding has been appointed Head Nurse in Astley-Cooper Ward, Probationer Sweet-Escott, Head Nurse in Charity Ward, and Probationer Lumholtz, Head Nurse in Addison Ward.

On July 17th, Probationer Bishop was appointed Head Nurse in Miriam Ward.

On July 28th, Nurse Harrington, Head Nurse in John Ward, left the Hospital on completion of her three years' training.

On August 3rd, Nurse Gabriel left the Hospital on completion of her three years' training, and Probationer Frazer was appointed to succeed her as Head Nurse in the Theatres.

Nurse Ottley, Head Nurse in Job, left the Hospital on August 6th, on completion of her three years' training.

On August 17th, Nurse La Touche left the Hospital on completion of her three years' training, and Probationer E. Fisher was appointed to succeed her as Head Nurse in Lazarus Ward.

The following Probationers have been successful in passing the Nurses' Surgical Examination held in June last:—Probationer Ashcroft, Bigg, E. Blenkarn, M. Blenkarn, Boniface, Brenan, Bruce, Buss, Calvert, Chiney, Clarke, Collett, Cox, Cronin, Dowley, Drewe, Du Boulay, Eaton, Fanconi, E. Ford, E. Foster, Fyson, Giles, Glen, Goddard, Grant, Hinds, Holdsworth, Iles, Illingworth, Jolliffe, Kirby, Kirkham, Knight, Kraussen, Lane, MacManus, Mannell, Matthews, MacLaren, Merrill, Miller, Moore, Noble, Oldershaw, F. Orchard, Pearce, Pearman, Prescott, Prince, Roussiano, Salter, Schlagentweit, Scott, Shepherd, Skinner, Stewart, Sutton, Taylor, Tilliard, Todd, Traill, von Possner, Walthall, Waters, Wilder, Windemer, Yates.

Appointments.

Civil.

DRYLAND, G. W., L.R.C.P. Lond., M.R.C.S., has been appointed District and Workhouse Medical Officer of the Kington Union.

LUHN, O. G. F., M.B., B.Ch. Oxon., L.R.C.P. Lond., M.R.C.S., has been appointed to the West African Medical Staff, and posted to Southern Nigeria.

Naval.

Staff Surgeon C. R. NICHOLSON, R.N., has been permitted to withdraw from the Service with a gratuity, July 24th.

Staff Surgeon M. P. JONES, R.N., has been appointed to the *Topaz*.

Births.

BURTON-BROWN.—On 17th August, at Old Orchard, Iver, Bucks, the wife of Gerald Burton-Brown, M.D. Durh., of a daughter.

WACHER.—On the 7th August, at Chalkwell Gardens, Leigh-on-Sea, the wife of Geoffrey Wacher, M.R.C.S., L.R.C.P., of a daughter.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

VOL. XXIII., No. 553.] SEPTEMBER 4, 1909. [SIXPENCE.

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Passim.

THE next issue of the GAZETTE will be the Annual Students' Number, which is devoted to the interests of freshmen. We would urge secretaries of societies, and others who may wish to bring any matters specially to the notice of freshmen, to send in their contributions as early as possible to the Editor. Lists of fixtures should also be sent, as soon as they are complete, by the officers responsible.

MR. H. E. PERKINS has been appointed Obstetric Resident, commencing September 1st, but his duties during the present month will be undertaken by Mr. H. O. Brookhouse.

IN our last issue we commented on Mr. Fremantle's recent paper in *Public Health* on the representation of the medical profession in Parliament. We are glad to be able to publish in the present issue a paper on this topic, by Mr. Fremantle, wherein his views are somewhat more fully set forth. We are sure that this paper will be of interest to all who believe, as we believe, that medical men should take their share in politics, and not stand aloof from it through indifference or any affectation of superiority.

WE understand that at a meeting of full surgeons' dressers, held recently, it was considered that the provision of meals in the dressers' room is rather needlessly expensive, and that some of these expenses might be curtailed without disadvantage. It must not be thought that these repasts have become at all Epicurean in character; in fact, they have departed very little from their traditional lines. But there have always been items, no doubt, which could be dispensed with, and it is these which the reformers, working on the lines of Mr. Lloyd George's Budget, seek to abolish. While we give publicity to this meeting, in order that future dressers may know which way present opinion is directed, it is obvious, of course, that each set of dressers can only decide for themselves on any matter of this kind. If, however, any change in these customs is considered desirable, the present is a very appropriate time to make it, as the old Front is

shortly moving to Maze Pond. The new dressers' room being somewhat small in comparison with the old, the hospitalities of future take-in dressers must necessarily be on a correspondingly smaller scale.

AMONG the various improvements which are being carried out in these months of renovation and restoration there is one which will add to the comfort of the junior students. The Dissecting Room floor is being relaid, and in place of the cold concrete there is now a new flooring of hard stained wood over layers of deal and concrete. New tables of teak are also to be introduced, we hear. The restoration of Addison ward is now proceeding, and will be completed in a few weeks' time. The new Out-Patient buildings are now in use, and the transference of the Front Surgery is to be effected next week. We intend shortly to give a description of the new block.

We have received a marked copy of a recent issue of the *Archives of the Roentgen Ray*, containing a leading article on X-ray pioneers, whose scarred hands are a sad sight to see at any Roentgen Congress. While admitting that the nurses and radiographers and the patients (at any rate in those cases where the rays are being used for diagnosis) are now practically immune from danger of exposure to the rays, thanks to improved methods of protection, the writer sounds a note of warning with regard to the use of X-rays for therapeutic purposes. The means of measuring dosage, he points out, are still very imperfect; and, apart from overdoses, repeated exposure to the rays in therapeutic doses is thought by some observers to cause disturbances of development and growth, such as have been produced experimentally in animals. "In these circumstances," the writer remarks, "the suggestion of the London County Council for the compulsory treatment of ringworm by X-rays is somewhat inopportune. . . Better to suffer a few cases of ringworm in our schools than to nip untimely in the bud the cerebral development of some future Newton or Nelson." While we must agree that an imperfectly understood method of treatment such as the X-rays should be used warily, we do not think it is very wise to alarm the general public by suggestions (for after all they are nothing more) of this kind. Many cases of ringworm, we believe, are cured in our own Light Department by a single short exposure to the rays, and it is very difficult to imagine such catastrophes following as the alarmists would suggest.

A POSTCARDFUL of invective, addressed "To the Students of Guy's Hospital," has been handed on to the GAZETTE by the Medical School Office with the equivocal remark that such a foretaste of judgment to come is most appropriately forwarded to us. Here are the hysterical contents of the card:—

> "Having heard so much of the cruelties in your Hospital of vivisection, I should like to ask you students whether your conscience (if you have any) does not tell you that you will stand before your Maker some day to give an account for all your wickedness in torturing poor innocent helpless dumb creatures who never did you or anyone harm, what *contemptible*, *inhuman*, *dastardly cowards* you must be to take advantage of a poor helpless animal, surely vivisectors have no *mother*, *sister or wife*, if so, what can they be made of, if they have a spark of love in them, how they must *loathe* you and how ashamed they must be to belong to such satanic wretches, for truly you are not worthy the name of men, you are of the devil, sent by him to torture the innocent, and make the world a hell to live in. You will laugh and scoff at these plain truths, but mark my words *your* turn will come some day, if you had your deserts in this life you should be *gagged*, strapt down and tortured and agonised as those poor creatures, then let the public hoot you out of the country, but God's eye is watching you and will punish you as you deserve, Vengence (sic) is mine saith the Lord."

So much for ½d.! In return we commend two "plain truths" to the writer of the card. (1.) Not a single student at the hospital is a vivisector. (2.) Many vivisectors have had mothers, and not a few sisters and wives also.

Change of Address.

H. J. Henderson, M.B., B.S. Lond., L.R.C.P., M.R.C.S., from 70, Wickham Road, Brockley, S.E., to The Red House, Amersham, Bucks.

A. S. Morton Palmer, M.A., M.B., B.C., L.R.C.P., M.R.C.S., from Guy's Hospital to 96, Marine Parade, Worthing.

H. Stanley-Jones, M.B. Lond., L.R.C.P., M.R.C.S., from Abbeville Road, Clapham Park, S.W., to Stanhoe, 65, Grove Vale, East Dulwich, S.E.

Captain Hugh Watts, Indian Medical Service, M.B., B.S. Lond., Jullunder Cantonments, Punjab, India.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane* :—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate.*

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

A.E.L., BUCKINGHAM (H.H.).—This urine is acid in reaction, and a small amount of albumen is present.

Microscopical examination.—The centrifugalised deposit is small in amount, but contains a slight excess of mucin, an occasional red blood disc, and a few masses of highly refractile cells which we suspect to come from the prostatic follicles. There are no crystals or traces of pus, and a careful search has not revealed any tube casts.

We suspect the condition to be the so-called functional albuminuria.

PATHOLOGIST.

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Lawrie McGavin, F.R.C.S. Eng.: The Double Filigree Operation for the Radical Cure of Inguinal Hernia, with Notes of Thirty-three Cases; and on Certain Cases of Ventral Hernia Cured by the Implantation of Filigree, (Illustrated).—*British Medical Journal*, 14th August, 1909.

H. M. Page, F.R.C.S. Eng.: A Method of giving Ether by Means of Nasal Tubes.—*The Lancet*, 7th August, 1909.

D. W. Samways, M.D., D.Sc.; On Misconceptions concerning the Riviera.—*The Lancet*, 7th August, 1909.

Lieutenant A. F. Barker, M.B., B.C. Camb., Indian Medical Service: The Action of Creosote in Reducing High Temperature in Enteric Fever.—*Indian Medical Gazette*, August, 1909.

Walter Kidd, M.D. Lond., F.R.C.S., F.Z.S.: The Arrangement of Papillary Ridges on the Human Hand and Foot.—*Journal of Anatomy and Physiology*, July, 1909.

Myers Coplans, M.D. Lond.: Influences affecting the Growth of Micro-organisms; Latency; Inhibition; Mass action.

Literary Note.

MESSRS. WILLIAM HODGE & CO., Edinburgh and Glasgow, have in the press, and will shortly publish, a work entitled "Construction, Equipment, and Management of a General Hospital," by Donald J. MacIntosh, M.B., M.V.O., Medical Superintendent of the Western Infirmary, Glasgow. This comprehensive manual should be of value to medical men engaged in hospital work, or who may think of selecting hospital administration as a career. It will probably be of even greater value to architects charged with the construction or alteration of hospitals. Dr. MacIntosh, as is well known, has made a special study of the theory and practice of hospital construction and administration, and this book may be accepted as the latest pronouncement on this important and difficult subject. Besides plans of the most approved types of wards and auxiliaries, the book contains over sixty carefully reproduced illustrations showing, *inter alia*, Wards, Operating Theatres, Laundry, and special departments, all kinds of hospital furniture and requirements, etc. It is anticipated that this book will become a manual for daily use among all public authorities that have the care of hospitals. The price of the book is 10/6 net.

Heredity.

DENTAL CLINICAL LECTURE BY MR. MONTAGU F. HOPSON.

GENTLEMEN,—A few weeks ago there was a very notable gathering at Cambridge. Eminent scientists, drawn from all parts of the world, met together to do homage to the memory of Charles Darwin; to commemorate the centenary of his birth, and the jubilee of the publication of "The Origin of Species." This epoch-making book was the amplification of the joint paper communicated to the Linnæan Society by Darwin and his great compeer, Alfred Russel Wallace. It is interesting to us to recall that the meeting of the society, on July 1st, 1858, at which the paper was read, was presided over by our then Dental Surgeon, Thomas Bell, and that among the Fellows present was his successor at Guy's, James Salter.

Until the time of Darwin it had been held by the majority of naturalists that species were separately created and were immutable. In "The Origin" he adduced facts to prove "that the innumerable species, genera, and families of organic beings with which the world is peopled have all descended, each within its own class or group, from common parents, and have all been modified in the course of descent." This, as you will observe, is a theory which compounds Heredity *plus* Variation, and he was convinced that Natural Selection was the chief means of modification. Thus, an individual which showed some variation of advantage to it in the struggle for existence, scored over its fellows, survived, and handed on that variation to its offspring. Darwin believed that these variations were small, and increased slowly from generation to generation until they ultimately became pronounced.

Some naturalists to-day believe that many variations, sometimes large in degree, appear suddenly and persist. Such have been termed "mutations" by de Vries, and "discontinuous variations" by Bateson. Even if this be true, as it probably is, Natural Selection must still play its part in permitting the viable to live and causing the non-viable to perish. I propose to direct your attention more particularly to the subject of Heredity, but in the short time at my disposal I can hardly hope to do more than stimulate your interest and furnish you with some material for reflection.

First of all, let us arrive at what we mean by Heredity; we can then discuss some of the theories of heredity, and finally briefly consider the subject in relation to disease and dental abnormalities. There is a familiar saying that "like tends to beget like," and by Heredity we mean the transference of similar characters from one generation to another.

Living creatures come from parents more or less like themselves; low down in the scale of life reproduction is asexual, and occurs as the result of fission, budding, or similar process. Higher up in the scale it is sexual and results from the union of a male and female cell. Now it is of importance to remember that in sexual reproduction two things are required, which are quite distinct; a fertilised egg-cell which posesses certain qualities and possibilities in virtue of its relation to its parents, and an appropriate environment for the supply of food and the various other things necessary for growth, and the realisation of those ancestral qualities and possibilities. But no offspring is exactly like its parents. There is always a tendency towards variation. Some of these variations are inherited, others arise as a result of habit, nurture, or environment.

It is one of the problems of heredity to determine which qualities are inherited, that is to say, spring from the germ, and are derived from

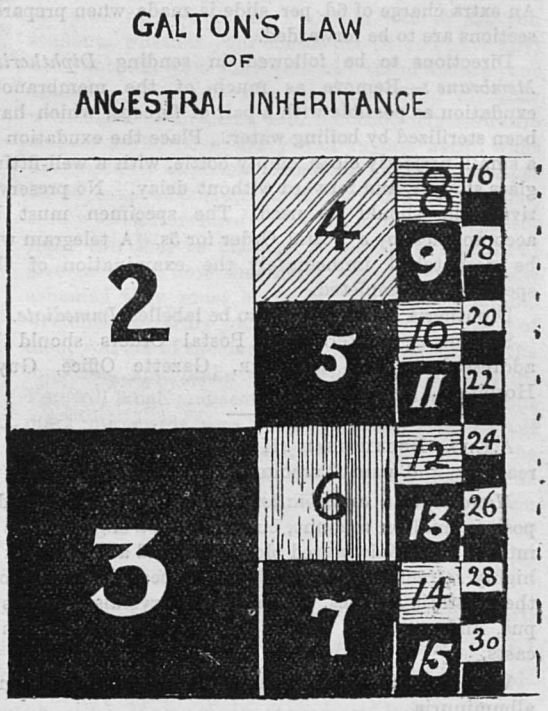

FIG. 1. (After A. J. MESTON).

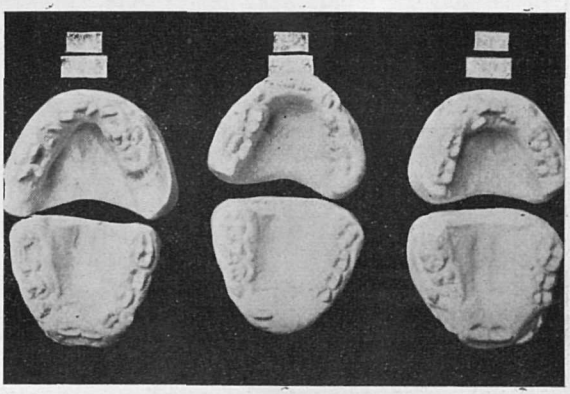

FIG. 8.

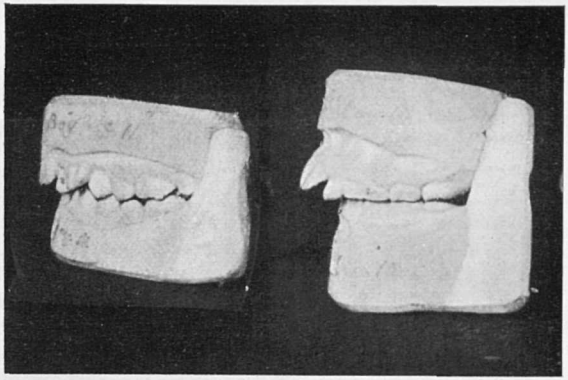

FIG. 12.

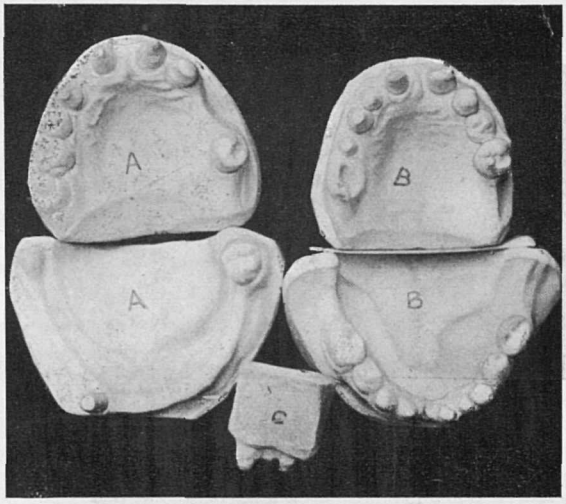

FIG. 9.

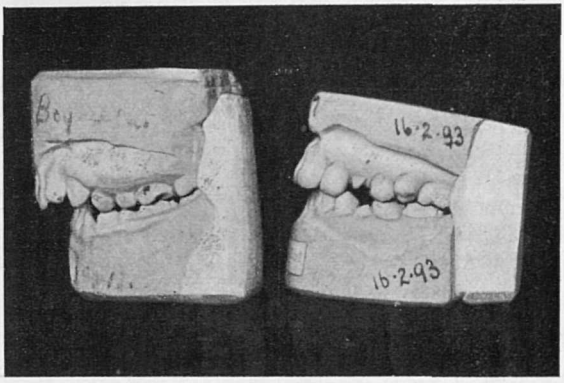

FIG. 13.

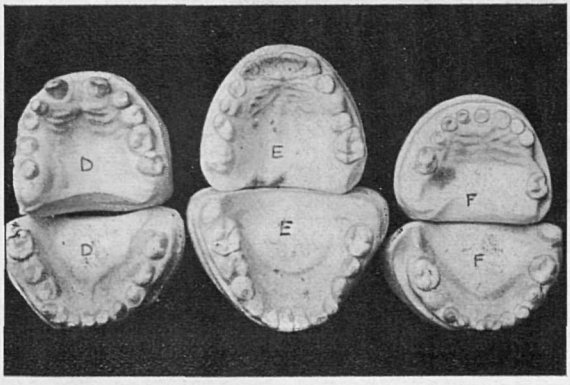

FIG. 10.

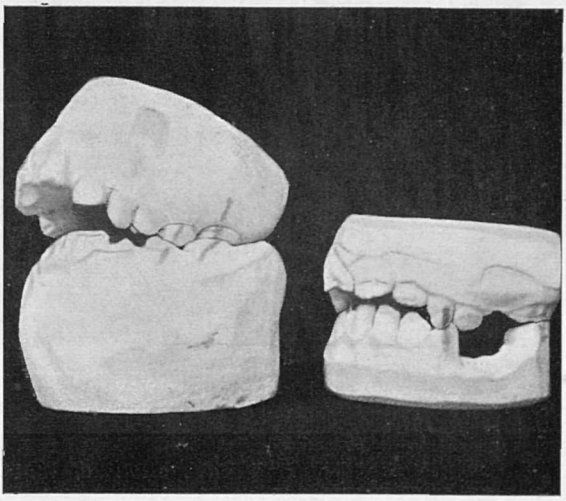

FIG. 14.

Figures illustrating Mr. Hopson's Lecture on "Heredity."

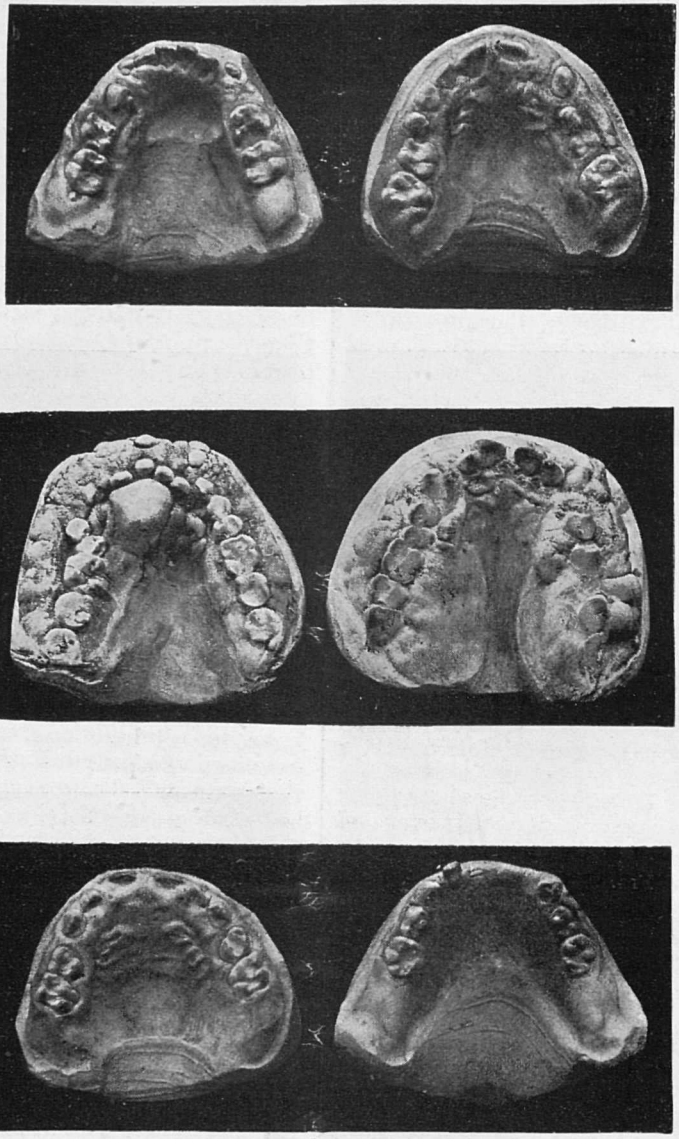

FIG. 7.

(*Transactions of the Odontological Society*, Vol. 32.)

within, and which are Acquired Characters derived from without.

Galton's Law of Ancestral Inheritance.—This diagram (Fig. 1) illustrates what is known as Galton's Law of Ancestral Inheritance. It in a measure explains itself. The square represents the ancestral inheritance of an organism. It derives one half from its two parents, one quarter from its grandparents, one eighth from its great-grandparents, and so on. You must understand, however, that this is not to be taken as applying to one particular, or each particular individual, although if it be true, it must apply to several, but as representing the average inheritance, as ascertained by statistical deduction from a large number of cases. This has been confirmed approximately by Karl Pearson and other exponents of the Biometric School.

But you will ask—How are these ancestral qualities handed on from generation to generation, and whence come the variations that arise? We cannot attempt this morning the consideration of all the suggested solutions of these problems. Let it suffice to say that they have been sought mainly in two directions, (1) in the histology of the germ cells and the maturation of the fertilized ovum, and (2) by actual experiments in breeding. I would remind you, however, that "fertilization implies an intimate and orderly union of *two* individualities."

The Continuity of the Germ Plasm.—Weismann has enunciated a theory which is known as "The Continuity of the Germ Plasm." He believes that there is a specific substance, the "germ plasm," which is the bearer of hereditary qualities, contained in the egg-cell; that in the construction of the body the whole of the germ plasm is not used, a portion being left over and reserved unchanged for the formation of the germ cells of the following generation. This is represented diagramatically in Fig. 2. Thomson thus summarises the Weismann theory, "The basis of inheritance—the germ plasm—is in the chromatin of the nucleus of the germ-cell. The chromatin takes the form of a definite number of chromosomes (or *idants*). The chromosomes consist of *ids*, each of which contains a complete inheritance. Each id consists of numerous primary constituents or *determinants*. A determinant is usually a group of *biophors*, the minutest vital units. Hence it is the components of the id which contain all the potentialities for the particular parts of a new organism, and these parts will not arise if their particular determinants are wanting. Further, Weismann carries the Darwinian hypothesis back to these determinants, and holds that the struggle for existence, in regard to food and multiplication, occurs amongst these minute living particles, just as it does among organisms themselves, and species and species. It is during this struggle, involving success and defeat, that the selection of *germinal variations* takes place, and those which prove of advantage to the organism are favoured and persist.

Acquired characters.—Variations which are due to external influences are spoken of as "acquired characters." An acquired character may be defined as "a structural change in the body of a multicellular organism, involving a deviation from the normal, directly induced during the individual lifetime by a change in environment or in function (use and disuse), and such as to transcend the limit of organic elasticity, and therefore persists after the factors inducing it have ceased to operate." The generally accepted view is that such variations are not transmitted from parent to offspring. They include such things as increased muscular development due to exercise; atrophy through disuse; alterations in the shape and contour of bones resulting from specialised activities, trades,

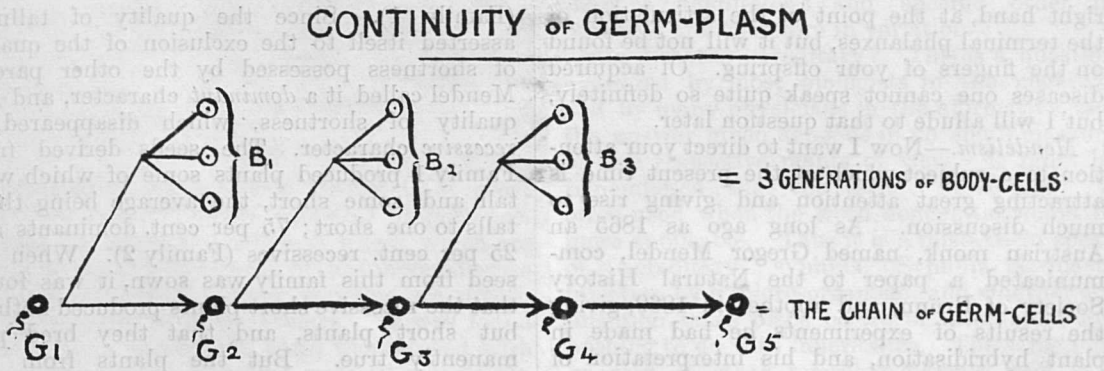

FIG. 2. (Modified from E. B. WILSON.)

occupations, etc. In the same category may be placed induced deformities and mutilations. Thus the Chinese women have for centuries suffered their feet to be compressed in childhood until a permanent deformity is produced, but there is no evidence that this deformity is handed down to their children. The Jewish race has practised the rite of circumcision from Mosaic times, yet the foreskins of Jewish children are comparable with those of the Christian race. There are some who say that you mutilate the mouths of children by removing certain of their teeth at an early age, but it does not follow that these particular teeth will be wanting in the next generation. As the result of your daily work you possess a callosity on the inner surface of the second finger of your right hand, at the point of the articulation of the terminal phalanxes, but it will not be found on the fingers of your offspring. Of acquired diseases one cannot speak quite so definitely, but I will allude to that question later.

Mendelism.—Now I want to direct your attention to a subject which at the present time is attracting great attention and giving rise to much discussion. As long ago as 1865 an Austrian monk, named Gregor Mendel, communicated a paper to the Natural History Society of Brünn, and another in 1869, giving the results of experiments he had made in plant hybridisation, and his interpretation of the facts observed. Curiously enough these important papers, although published, passed unheeded. They were rediscovered in 1900, and this has led to the formation of a school of biologists and naturalists, headed in this country by Bateson, actively prosecuting research on Mendelian lines.

Mendel, perceiving that organisms possessed definitely differing characters, proceeded to investigate experimentally the heredity of each character separately, and he selected the edible pea for his purpose. Mendelian inheritance in its simplest form is represented diagramatically in Fig. 3. Taking two varieties of the pea which are quite distinct in the matter of height, one producing tall plants and the other short, he crossed them. The cross-bred seeds thus produced all grew into plants which were tall

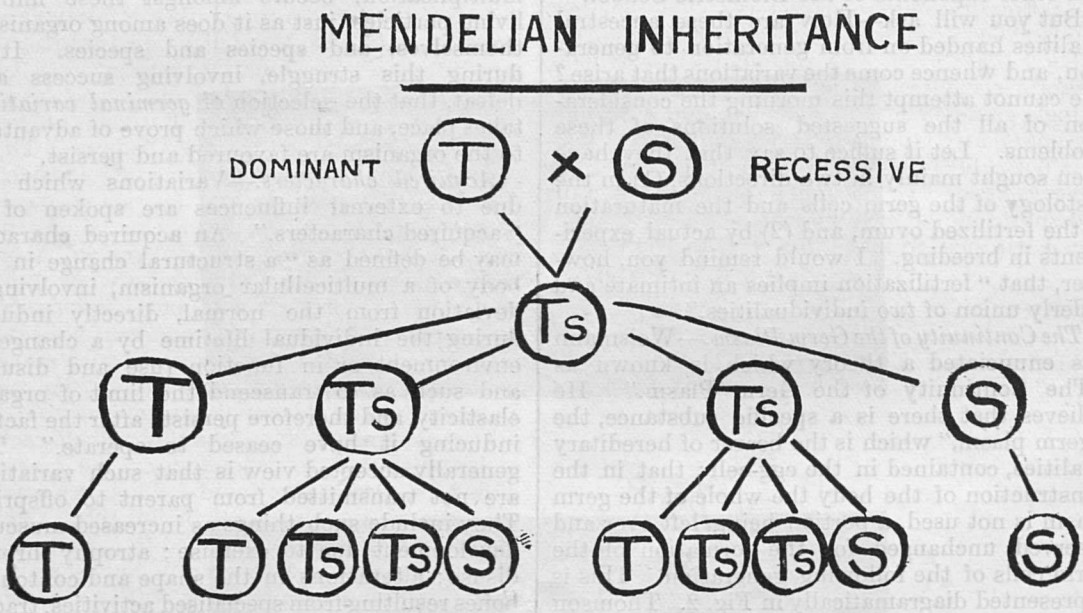

FIG. 3.

(Family 1). Since the quality of tallness asserted itself to the exclusion of the quality of shortness possessed by the other parent, Mendel called it a *dominant* character, and the quality of shortness, which disappeared, a *recessive* character. The seeds derived from Family 1 produced plants some of which were tall and some short, the average being three talls to one short; 75 per cent. dominants and 25 per cent. recessives (Family 2). When the seed from this family was sown, it was found that the recessive short plants produced nothing but short plants, and that they bred permanently true. But the plants from the Family 2 dominants, when tested, proved to be of

two kinds, (*a*) Plants which gave a mixed Family 3, both talls and shorts, the proportion being again three talls to one short, and (*b*) Plants which gave pure talls only, the ratio of the impure (*a*) plants to the pure (*b*) plants, being two to one. From which we see that the Family 2 plants were of three kinds,

Pure dominants	Impure dominants	Pure recessives
1	2	1

or three dominants to one recessive.

The Mendelian explanation of the experiment is as follows: The fertilised ovum, or *zygote* as it is called, is compounded of two germ-cells or *gametes*, bearing the characters of tallness and shortness respectively. The new germ-cells derived from this zygote are bearers either of tallness or shortness; hence there must be a separation of the two characters. This separation is called in Mendelian terms the *Segregation of Unit Characters*, and the characters which separate are described as allemorphic. Hence a single gamete contains one character only, but a zygote may contain either two similar gametes, *i.e.*, both tall, in which case it is called a *homozygote*, or two dissimilar gametes, *i e.*, tall and short, and is then known as a *heterozygote*. Fig. 4 will help to make this clear to you.

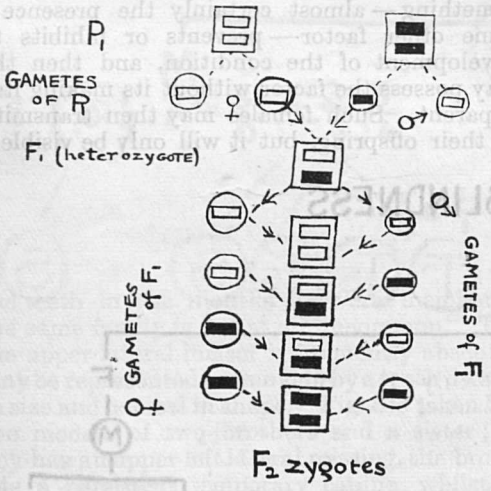

FIG. 4. (After PUNNETT.)

An experiment made by Biffen is of great interest and of much practical importance. There are several varieties of wheat which are very susceptible to attacks of the fungoid disease known as "rust." Other varieties are practically immune to these attacks. It was found that when a susceptible plant was crossed with an immune plant, Family 1 were all susceptible, thus showing that susceptibility was dominant to immunity. The continuation of the experiment yielded results which realised the Mendelian expectation. The difference in size between 24 average ears of susceptible wheat, and 24 average ears of immune wheat is most marked; the weight of the former being 22 grms., and of the latter 73 grms., due to the larger amount of grain set.

The skins of the common tabby cat are quite distinct. One has been termed "the striped tabby," and the other "the blotched tabby." The interesting thing about them is, that although these cats have bred together promiscuously for years, no intermediate forms are known, they are all either striped or blotched, thus indicating the segregation of alternative characters and gametic purity.

It must not be assumed that "dominance" is an essential of Mendelian inheritance, for there are cases in which the heterozygous type is intermediate in character between the two pure types, from which intermediate type, however, either pure type may be bred. These simple examples which we have just considered deal with but a single unit character, pure in type, when crossed with another single unit character, also pure in type. But you will at once realise the possibilities which exist when impure dominants are crossed with pure dominants or recessives, and when an organism possessing multiple unit characters is crossed with another possessing multiple unit characters. To quote Bateson: "The essential deduction from the discovery of segregation was that the characters of living things are dependent on the presence of definite elements or factors which are treated as units in the processes of heredity. These factors can thus be recombined in various ways. They act sometimes separately, and sometimes they interact in conjunction with each other, producing their various effects. All this indicates a definiteness and specific order in heredity, and therefore in variation."

Are diseases hereditary? This is a question answered by most biologists in the negative, and by many physicians in the affirmative, and the answer given depends in no small measure on the respective points of view. It must be remembered that the term "hereditary" is often used when the word congenital would be more applicable. Thus it is a mistake to speak of "hereditary" syphilis. Syphilis is due to infection by a micro-organism, and whether the infection takes place before or after birth has nothing to do with inheritance. The same may be said of other microbic diseases, and it is

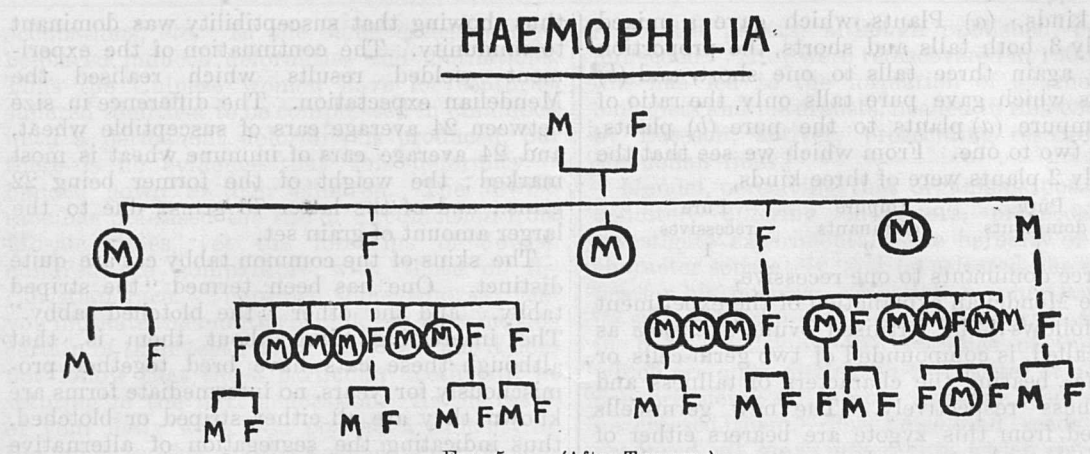

FIG. 5. (After TURNER.)

important to guard against mistaking re-infection for transmission. On the other hand, there appear to be grounds for believing that a predisposition to certain diseases may be inherited, a view not uncommonly held with regard to tuberculosis, and in this connection we may recall the Mendelian experiments with wheats susceptible and immune to "rust." Again, a predisposition to gout appears to be hereditary, and it may be "that the excess of diet and alcohol merely renders the habit of body apparent."

There are, however, certain peculiarities and deformities which are definitely heritable, and some are of special interest because the transmission is sex-limited. Fig. 5 is the pedigree of a family with that marked hæmorrhagic tendency known as hæmophilia, and you will notice that it is transmitted through the females to the males. The Mendelian explanation of this sex-limited transmission is that the hæmorrhagic factor is dominant in males and recessive in females, "if the males contain the factor for the condition they exhibit it; consequently the affected males can transmit, while the unaffected males cannot. In the females, on the contrary, something — almost certainly the presence of some other factor — prevents or inhibits the development of the condition, and then they may possess the factor without its making itself apparent. Such females may then transmit it to their offspring, but it will only be visible in

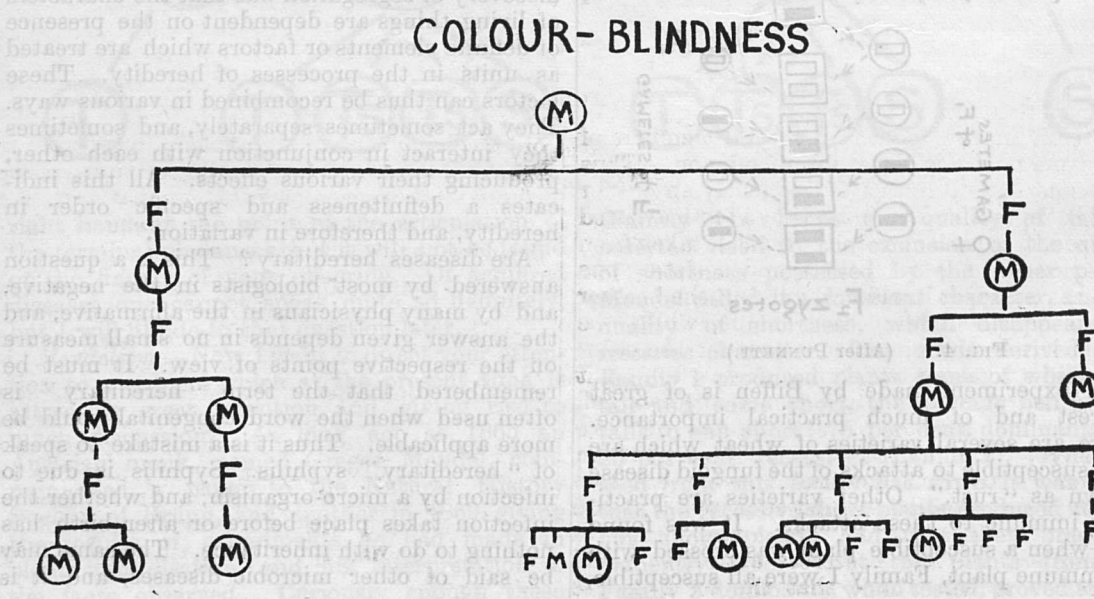

FIG. 6. (After HORNER.)

the males, except in the rare case of a union between a heterozygous female and an affected male." Fig. 6 shows a similar state of affairs with regard to colour-blindness.

Many family pedigrees have been published showing the inheritance of abnormalities such as brachydactylism, polydactylism, etc. Fig. 7 shows a condition of marked hypertrophy of the gums, which came under my notice a few years ago, occurring in a father and two of his children. You will find full details of these cases recorded in the Transactions of the Odontological Society, vol. 32.

Colzer has published particulars of a similar condition existing in the mouths of three brothers, the models of which may be seen in the Odontological Museum of the Royal Society of Medicine. A deficiency in the number of the teeth in the mouths of several members of the same family is not at all uncommon. Thus the upper lateral incisor is frequently absent, or may be represented on one side by a tooth dwarfed in size and conical in shape. Fig. 8 is taken from the models of two brothers and a sister; one boy has an upper left lateral missing, the brother has a persistent temporary canine, whilst the upper left second premolar is absent; the sister has also a retained temporary canine, the right upper lateral is absent, and the left one dwarfed. Fig. 9, the models of the mouths of three brothers. The eldest, aged 12 years, has an extremely aberrant dentition, having but two teeth in his mandible, whilst such teeth as are present in the maxillæ are rudimentary in character. He also possesses extremely small nails. You will notice that the teeth of the second boy, aged 10 years, are of a similar type. The small model is that of the youngest, aged 10 months. So far he has erupted but two teeth in the upper incisor region; they are mere cones and widely separated. Fig. 10 shows you the models of the mouths of three cousins of the above. Two of them present similarly aberrant teeth, whilst one is normal. The three are girls, aged 16, 12, and 7 years. The relationship between these children is close, the fathers being brothers and the mothers sisters. Most unfortunately I was unable to complete the examination, as the families disappeared and could not be traced. The teeth of the mother of the first three children were normal.

Models illustrating analogous cases are to be found in most dental museums. In the Odontological Museum of the Royal Society of Medicine, there are models, presented by Mr. C. Robbins, of the mouths of three sisters whose teeth were remarkable in that certain of the cusps are dwarfed, whilst others are over-developed and markedly pointed.

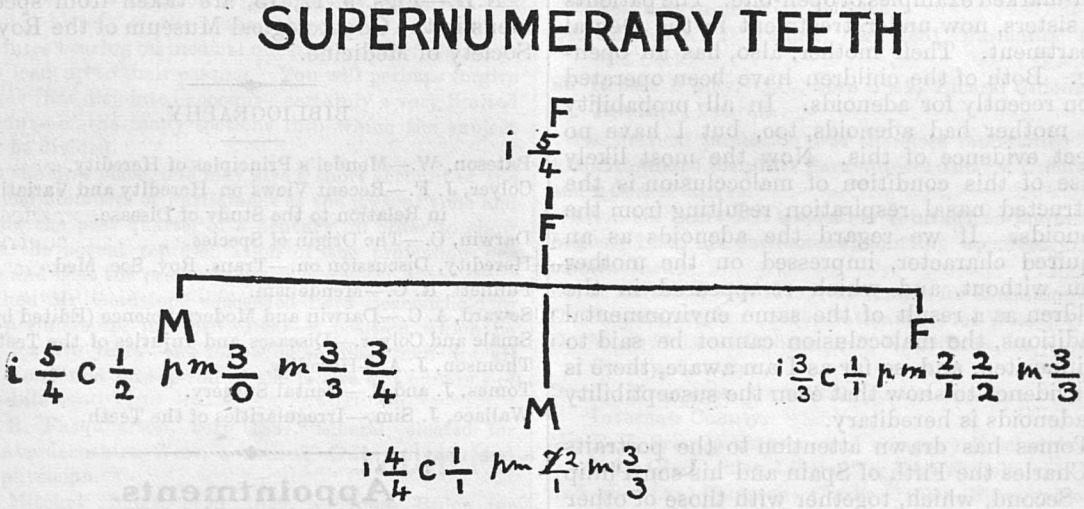

FIG. 11.

I find it more difficult to discover instances of supernumerary teeth occurring in several members of the same family, but I see no reason to suppose that they are as rare as the paucity of records indicates. Fig. 11 is the pedigree of a remarkable case quoted by Tomes. Another case has been recorded in which the presence of a very diminutive supernumerary tooth in the incisor region in the mouth of a man, aged 25, was correlated with a supernumerary rib. A brother also had three extra ribs, and an elder sister two.

In conclusion, I want to say a few words as to the part which heredity plays in the causation of irregularities and malocclusion. If you refer to your text-books, you will find that heredity is frequently cited as one of the causes of this condition, but, as Sim Wallace remarks, it is usually so assigned in those cases in which the cause is obscure. Fig. 12 shows a case of superior protrusion in the mouth of a boy aged 10, and the same condition in the mouth of a brother at the age of 11 years. Fig. 13, another brother aged 12 years and a sister aged 11 years, both exhibiting superior protrusion. Here, then, is this typical deformity occurring in the mouths of four members of the same family, but we must not on that account jump to the conclusion that it is hereditary. Compare these cases with those depicted in Fig. 14. Here we have two well-marked examples of open-bite. The patients are sisters, now under treatment in the Dental department. Their mother, also, has an open-bite. Both of the children have been operated upon recently for adenoids. In all probability the mother had adenoids, too, but I have no direct evidence of this. Now the most likely cause of this condition of malocclusion is the obstructed nasal respiration resulting from the adenoids. If we regard the adenoids as an acquired character, impressed on the mother from without, and which re-appeared in the children as a result of the same environmental conditions, the malocclusion cannot be said to be inherited, and, so far as I am aware, there is no evidence to show that even the susceptibility to adenoids is hereditary.

Tomes has drawn attention to the portraits of Charles the Fifth of Spain and his son Philip the Second, which, together with those of other members of the family, exhibit the prominent "Burgundian" lower jaws. They were, in fact, "underhung," a peculiarity possessed by the present reigning monarch of that country. In the same manner, V-shaped arches may be traced back in family portraits through many generations as a family characteristic. It is not uncommon to find instances of a particular tooth being slightly misplaced in several members of a family when there is no general crowding to account for it.

Many writers to-day protest against the theory that a general crowding of the teeth may be due to the intermarriage of parents possessing large jaws with large teeth, and small jaws with small teeth respectively, and the inheritence of the small jaws of one parent, and the large teeth of the other. Whether the size of the teeth may be regarded as a unit character, and the size of the jaws as another unit character, is unknown. It is certain, however, that we see many instances in which the teeth are too small for the jaws, and it is quite as reasonable to regard other teeth as too large.

It must be remembered that the size of the permanent teeth is fixed and determined at a very early age, and no external influence can modify, to any appreciable extent, the size of the crowns once they have been laid down, whilst many external factors may contribute to hinder and arrest the full development of the jaws which have to accommodate them. Hence I think we may take it as certain that malocclusion is largely an acquired condition, but to say that heredity plays no part in its causation is to go further than our present knowledge of the subject warrants.

N.B.—Figs. 9, 12, 13, are taken from specimens in the Odontological Museum of the Royal Society of Medicine.

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Punnett, R. C.—Mendelism.
Seward, A. C.—Darwin and Modern Science (Edited by).
Smale and Colyer.—Diseases and Injuries of the Teeth.
Thomson, J. A.—Heredity.
Tomes, J. and C.—Dental Surgery.
Wallace, J. Sim.—Irregularities of the Teeth.

Appointments.

Civil.

CARR, T. E. ASHDOWN, M.B., B.S. Lond., L.R.C.P., M.R.C.S., has been appointed Resident Surgical Officer to the Birmingham and Midland Eye Hospital.

Military.

Surgeon Captain J. S. STEELE-PERKINS, 4th Battalion Devonshire Regiment, resigns his commission.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Medicine and Parliament.

Paper read before the Oxford Medical Society, at the Radcliffe Infirmary, on Friday, October 10th, 1908, by F. E. FREMANTLE, M.A., M.B., M.Ch. (Oxon.), M.R.C.P., F.R.C.S., Medical Officer of Health and School Medical Officer for the County of Hertford.

MR. CHAIRMAN AND GENTLEMEN,—I am much honoured by the invitation to address you this evening on a subject which has been near my heart for fourteen years, since my last term as a post-graduate at Oxford.

The subject is one of constant interest to medical men—one which is constantly being discussed, and one in which it is generally agreed in our profession that there is a great scope for development. But despite this fact, I have been unable to find any comprehensive account of the work of the medical profession in Parliament, either as it has been done or as it might be done, nor any detailed history of the passage through Parliament of measures bearing on medical questions, and of the steps that lead up to their passing. You will perhaps forgive a somewhat disjointed account—certainly a very limited account—of the many sections into which the subject may be divided.

In the first place, one may give a short account of the medical Members of Parliament at the present time and during the past quarter of a century, in order to show what the actual representation of the profession has been and is at the present day.

When Mr. Gladstone succeeded Lord Beaconsfield in the premiership, in April, 1880—a position which he held for five years—the following medical men are all that I can find on the roll of the House of Commons of that date* :—

Dr. R. Farquharson, born 1837, Liberal, elected for Aberdeenshire West, a retired Army surgeon and physician.

Mr. Mitchel Henry, born 1826, a Home Ruler for Galway, a retired surgeon and merchant.

Dr. R. D. Lyons, born 1826, Liberal, for Dublin, a physician.

Mr. John Dillon, born 1851, Home Ruler, elected for Tipperary, a general practitioner.

To these four was added, at a bye-election, the name of Sir J. J. T. Lawrence, Bart., born 1831, Conservative, for Mid-Surrey, a retired Army surgeon. Out of 670 members the medical profession was, therefore, represented by 1 Conservative, 2 Liberals, and 2 Home Rulers.

After the General Election, Mr. Gladstone was again returned in February, 1886, with a small majority, for a few months. This included three members who only sat for those three months, namely :—

Sir Balthazar Walter Foster, born 1840, a Gladstonian Liberal, for Chester.

Dr. K. Izod O'Doherty, born 1823, Parnellite, for North Meath.

Dr. G. A. Billington, born 1848, a Gladstonian Liberal, for South West Lancashire, Southport.

After the General Election, in the summer of 1886, Lord Salisbury came to power in July, and the roll of the House of Commons included the following names :

Charles Cameron, M.D., born 1841, Gladstonian Liberal, for Glasgow College.

G. B. Clarke, M.D., born 1846, Gladstonian Liberal, for Caithness.

J. Dillon, a surgeon, born 1851, Parnellite, now for East Mayo.

Dr. Farquharson.

Dr. J. F. Fox, M.D. Cincinatti, born 1853, Parnellite, King's County.

Sir W. Guyer Hunter, K.C.M.G., retired I.M.S., born 1829, Conservative, for Central Hackney.

Dr. J. E. Kenny, born 1844, Parnellite, for Cork.

Sir J. J. T. Lawrence, Bart.

Dr. R. McDonald, born 1840, Gladstonian Liberal, for Ross and Cromarty.

Dr. Charles K. D. Tanner, born 1851, Parnellite, for Mid-Cork.

Sir Robert Finlay, Q.C., born 1842, Liberal Unionist, Inverness District.

The medical profession was therefore represented by 4 Gladstonian Liberals, 4 Parnellites, 1 Liberal Unionist and 2 Conservatives.

After six years Mr. Gladstone returned to power in August, 1892, his parliament including, apparently, 11 medical men :

Dr. D. Ambrose, born 1843, Nationalist, for South Louth.

Dr. R. Ambrose, born 1855, Nationalist, for West Mayo.

Dr. M. A. McDonnell, born 1845, Nationalist, for King's County, Leinster.

Dr. D. Macgregor, born 1839, Gladstonian Liberal, for Inverness County.

Mr. R. J. Price, a surgeon, and company director, born 1854, Gladstonian Liberal, for East Norfolk.

And also Drs. Cameron, Clarke, Dillon, Farquharson, Kenny and Tanner, who had sat before.

The profession was thus represented by 5 Gladstonian Liberals and 6 Nationalists, and no Conservatives or Unionists.

Lord Salisbury returned to power in June, 1895, and his Parliament included Drs. D. and R. Ambrose, Dillon, Fox, Kenny, MacDonnell and Tanner, Nationalists; Drs. Clarke, Price, Farquharson and B. W. Foster (this time returned for the Ilkeston Division of Derbyshire), Liberals; besides Sir Robert Finlay, Liberal Unionist, and Sir William Priestley, born 1829, Professor of Midwifery at King's College, and Unionist Representative of Edinburgh and St. Andrew's Universities.

After the khaki election in November, 1900, Drs. R. Ambrose and Dillon were all that were left of the medical Nationalists, although reinforced in a bye-election by Dr. E. C. Thompson, F.R.C.S.I., born 1851, Nationalist, for North Monaghan. Dr. Farquharson and S. W. Foster were returned, as also Dr. Rutherfoord Harris, a South African practitioner and company

*From Dod's "Parliamentary Companion."

director, Conservative, for Dulwich; and the representation of the profession was influentially increased by the addition of Sir J. Batty Tuke, born 1835, Conservative, for Edinburgh and St. Andrew's Universities, and by Sir Michael Foster, born 1836, Liberal Unionist, for London University, besides Sir Robert R. Finlay, K.C.

The profession was therefore represented by 3 Nationalists, 2 Liberals, 2 Liberal Unionists and 2 Conservatives. Dr., now Sir Charles, Hutchinson, who had retired from large practice at Scarborough and Monte Carlo, came in as Liberal for Rye in 1903.

At the General Election of 1906 there were 25 medical candidates: 16 of them stood for English constituencies, 5 for Scotch, and 4 for Irish. Of these, 3 were Nationalists, 11 Liberals, 5 Liberal Unionists and 6 Conservatives. Amongst those who failed were Sir A. Conan Doyle, Liberal Unionist; Surgeon-Genl. Evatt, retired R.A.M.C., Liberal; Sir Michael Foster, who had crossed the floor of the House and become a Liberal; Mr. Rutherfoord Harris and Dr. Hillier, Liberal Unionists, both of South African fame; Dr., now Sir Charles, Hutchinson, Liberal; Dr. W. R. Smith, Liberal Unionist; and Dr. E. C. Thompson, Nationalist.

Those who now sit in the House of Commons are:

Sir W. J. Collins, born 1859, Liberal, for South-west St. Pancras.

Dr. G. Cooper, born 1844, Liberal, for South Bermondsey.

Dr. R. Ambrose, born 1855, Nationalist, for West Mayo.

Mr. J. Dillon, born 1851, Nationalist, for East Mayo.

Sir R. B. Finlay, K.C., born 1842, Liberal Unionist, for Inverness District.

Sir W. B. Foster, born 1840, Liberal, for Ilkeston Division of Derbyshire.

Dr. G. H. Pollard, born 1864, a barrister, Liberal, for Eccles Division of Lancashire.

Mr. R. J. Price, surgeon and company director, born 1854, Liberal, for East Norfolk.

Mr. R. A. Rainy, surgeon-oculist, born 1862, Liberal, for Kilmarnock District.

Sir G. Scott Robertson, K.C.S.I., born 1852, Liberal, for Central Bradford.

Dr. V. H. Rutherford, born 1863, Liberal, for Brentford Division of Middlesex.

Sir J. Batty Tuke, born 1835, Conservative, for Edinburgh and St. Andrew's Universities.

The medical profession is, therefore, at the present moment, represented by 2 Nationalists, 8 Liberals, 1 Liberal Unionist and 1 Conservative. Of these, Sir R. B. Finlay, K.C., was Attorney-General in the late Government, and he must be reckoned a barrister, and not a medical man, in so far as his legal profession and duties leave him no time to interest himself specifically in medical questions.

The only one of our profession who has held office in recent years is Sir B. W. Foster, who was Secretary to the Local Government Board under Mr. Gladstone and Lord Rosebery from 1892 to 1895, but was not given office in the present Government.

DOCTORS IN THE PRESENT PARLIAMENT.

A brief account may now be given of the present medical Members of Parliament.

Sir W. Foster was educated at Dublin and settled in Birmingham, where he is Emeritus Professor of Medicine in Queen's College, and consulting physician to the General Hospital. He is a F.R.C.P., and M.D. of the University of Erlangen, apart from honorary degrees conferred upon him at Durham and Montreal. He was chairman of the Council of the National Liberal Federation in 1886–1890, and is President of the Allotments and Small Holdings Association, and also of the Land Law Reform Association. He has, therefore, played a more conspicuous part in *party* politics, Sir Robert Finlay and Mr. Dillon, perhaps, excepted, than any other medical Member of Parliament during the last quarter of a century, and in his ministerial work, especially in the successful defence of the country against cholera, and in his constant advocacy of security of tenure, and other measures for the improvement of the public health, he has been a pioneer.

Sir J. Batty Tuke is professionally one of the most distinguished medical members of recent years. Educated at Edinburgh, he has made himself one of the first authorities on insanity. He is a Fellow of the Royal Society of Edinburgh and of the Royal College of Physicians of Edinburgh, and represents his University on the General Medical Council. He married a sister of the late Archbishop Magee, and has been the most conspicuous Conservative representative of the profession in politics during the period under review.

Sir George Scott Robertson was educated at the Westminster Hospital Medical School, and entered the I.M.S. in 1878; he served in the Afghan campaign in the next year and was employed under the Indian Foreign Office from 1888 to 1898, earning fame by his defence of Chitral, on which he has written a book, and as British Agent at Gilgit in 1893. He was knighted in 1895, and retired as a Lieutenant-Colonel in 1898. We may be glad that he should be employing his well-deserved retirement by serving his country afresh in Parliament, but he cannot, and would not wish, to be looked on mainly as a representative of the medical profession.

Sir Wm. J. Collins, not yet 50 years old, was educated at University College School and St. Bartholomew's Hospital, and obtained a gold medal in Public Health. Professionally he has done useful work as a surgeon to the Royal Eye Hospital, the London Temperance Hospital, and the North West London Hospital; but although serving on the Royal Commission on Vaccination, 1889 to 1896, and on Vivisection in 1906, he cannot in this respect be said to represent the general feeling of the profession, in that he has constantly opposed compulsory vaccination. In public affairs he has played a considerable part as member of the London County Council for fifteen years, its Chairman in 1897–8, and Chairman of its Education Committee from 1903–6. Moreover, he is a Fellow and Senator of the London University, and its Vice-Chancellor. There is no doubt

that Sir William Collins is one of the strongest of our representatives in Parliament at the present time.

Mr. John Dillon is a pillar of the Nationalist party rather than a medical representative. But he has the degrees of M.D., R.U.I., M.Ch., L.M., 1876, and L.M. Coombe Hospital, Dublin. He was trained at Queen's College, Cork, at the Ledwick School, now part of the College of Surgeons, in Dublin, and at St. Bartholomew's, and as Medical Officer and Medical Officer of Health of the Listowel Dispensary District, County Kerry. He contributed some papers of medical interest to the *Lancet* and *British Medical Journal*. From 1880 to 1883 he sat for Tipperary, but in 1885, after being defeated for North Tyrone, he came in for East Mayo, his present constituency.

Dr. Cooper sits for Bermondsey, where he has been in general practice most of his life. He was educated at the Leeds Grammar School. He was a member of the London County Council from its formation for seventeen years, and was chairman of its Public Health Committee. He has shown considerable interest in public health affairs in the House, and has put forward a Bill each Session to promote that most necessary reform of fixity of tenure for Medical Officers of Health. In party politics he is an unflinching and independent Radical, and is liable to provoke opposition amongst his own party as well as his opponents.

Dr. Rutherford was educated at Edinburgh and Sidney Sussex College, Cambridge. He is a specialist in diseases of the skin, and is Medical Officer to the Electrical and X-ray Department of St. John's Hospital for that speciality in Leicester Square. He is an advanced Radical, in favour of self-government for Ireland, and temperance, social and labour reforms, and, after a brief visit to India last winter, desires a large measure of self-government for the natives of India.

Dr. Pollard, the youngest medical man in the House, is a barrister, and was formerly a member of the Lancashire County Council and Mayor of Southport when he was only 32 years of age. He was educated at Edinburgh and Oxford Universities, and is a Doctor of Medicine and Master of Surgery.

Dr. R. J. Price although a member of the Royal College of Surgeons, was called to the Bar in 1883, and is a railway contractor.

Mr. Rainy, educated at Edinburgh, Vienna and Berlin Universities, was a surgeon-oculist in London from 1887 until he entered into political work in 1900.

Dr. R. Ambrose was educated at Limerick and Queen's College, Cork, and has sat for West Mayo for the last fifteen years.

But while we are dealing with Parliament we must never forget that there are two Houses with equal powers, and, small as is the representation of our profession in the lower House, it is even smaller in the upper.

Our only representative, although one of world-wide and lasting fame, is Lord Lister, P.C., and of the Order of Merit, a Conservative. Lord Lister, alas, was born 81 years ago, and although it would be impossible to imagine a more distinguished representative of any profession, we cannot help being aware that Lord Lister is unable to engage in public work, and that our profession is practically therefore unrepresented in the work of the House of Lords.

The inadequacy of medical representation in the lower House is shown by a glance at the classification of members by their professions. We may take the following groups :—

Medical--8 Liberals, 2 Nationalists, 1 Liberal Unionist, and 1 Conservative. Total 11.
Teaching—15.
Newspaper Proprietors—16
Printers and Publishers—13.
Coal and Iron—19
Shipping—27.
Navy—4.
Army (Regulars)—52.
Authors and Journalists—47.
Landowners, and sons of Landowners and Peers—85.
Barristers and Solicitors—171.

This numerically excessive representation of lawyers may perhaps be justified on the grounds that the legal profession are trained to represent all professions and all spheres of life; but to this we would reply in return that they represent everything in legal terminology and in legal form, and that we, as representing the scientific, can lay at least an equal claim to represent all classes of mankind in the country, and that the sooner the country realizes the advantage of scientific as opposed to legal terminology, and of scientific as opposed to legal methods of procedure, the sooner will they be able to clear away the mists that obstruct the view of all problems of social and national importance in Parliament.

A Larger Parliament Needed.

Finally, in our review of Parliament, as it is at the present moment, we must know that whereas the 670 Members have to represent the 45 million population of the United Kingdom, there were as many as 658 Members to represent the 9 millions of England and Wales, and perhaps 15 millions of the United Kingdom, that is, one-third of the present population, after the union with Ireland in 1801, while our Parliament, after the union with Scotland in 1707, contained 558 Members; and under Queen Elizabeth in 1603, for the few millions in England and Wales there were 462 Members. It would seem obvious that the present Parliament, to represent a nation of such a comparatively vast size, with all the increase of imperial and national duties thrown upon it, and with the vast increase of facilities for communication, which throws upon Members not only opportunities but most onerous duties, should be extended to something like ten times its present number, if it is to cope as well with the work as it did in the time of Queen Elizabeth, without requiring Members to make a profession of it. Here would be a fine opportunity for the better representation of the medical profession.

MEDICAL LEGISLATION, PAST AND PRESENT.

Our second heading this evening will be the subject of medical legislation, past and present, how far this has been good, how far bad; how far it has been due to medical advice within and without the House; how far to the laity; and how far it has been due to either party or to independents.

On this point it may be well to give a history of the Public Health Act of 1875. I would recommend everyone interested in the public aspect of medicine to read if they have not already done so, the great work entitled "English Sanitary Institutions," reviewed in their course of development, and in some of their political and social relations, by the late Sir John Simon, K.C.B.I., the first Medical Officer of Her late Majesty's Privy Council.

Sir John Simon, while engaged in active surgical work as surgeon to St. Thomas's Hospital, took a special interest from the first in the relationship of medical science to the national health. He was appointed Officer of Health for the City of London in 1848, in accordance with the City Sewers Act of that year. He was appointed Medical Officer to the General Board of Health in 1855. From that he carried his post and papers on to the Privy Council in 1858, and to the Local Government Board in 1871, retiring in 1876. The shaping, therefore, of the 1875 Act, in so far as it was due to medical advice, was due to a large extent to Sir John Simon, but the passing of it, and, indeed, to a considerable extent, the shaping of it, was mainly due to Mr. Edwin Chadwick, who may be considered the pioneer of public health in this, and, therefore, in any country of modern times.

Mr. Chadwick was born in 1800, and, educated as a layman for the Bar, became early interested in the condition of the poor, and in so doing he realised the terrible physical conditions of their life. In 1832 Mr. Chadwick was appointed one of the Assistant Commissioners of Inquiry into the work of the Poor Laws, and in 1833 was appointed to a Royal Commission to examine the treatment of children in factories. In 1834 the report of that Royal Commission showed the anarchy prevailing in the place of public health law in England. In 1838 and the next following years the Poor Law Commission, stimulated by Mr. Chadwick, initiated eventful proceedings which led to the public health legislation of 1848. A special Public Health Commission of 14 members was appointed in 1843, and contained only one medical man, but it also contained the names of Mr. Lyon Playfair, afterwards Lord Playfair, and Professor Richard Owen, who was afterwards knighted, and died in 1892. Their work was largely founded and stimulated by the three-volume report by Mr. Chadwick, in 1842, on "The Practice of Interments in Town," which dealt not only with this point, but also with various other social relations of death.

In 1848 the General Board of Health was founded, to last for ten years, after which it was merged nto the Privy Council. The constitution of this Board is interesting. Lord Morpeth, afterwards first Earl of Carlisle, had carried the Public Health Bill of 1848 through the House of Commons. Lord Seymour, afterwards twelfth Duke of Somerset, Lord John Manners, and Sir William Molesworth held an *ex-officio* seat as First Commissioners of Works in turn. Lord Ashley, afterwards seventh Earl of Shaftesbury, and Mr. Chadwick made up the first Board, but within two years a medical member was appointed in Dr. Southwood Smith, who had done much of the investigation for the Royal Commissions which led to the establishment of the Board.

It was Mr. Chadwick who laid down that all sort of town refuse is best removed by a scour of running water in properly-made sewers. It was Mr. Chadwick who laid down the desirability and possibility of supplying even the lowest class of house with pure water from a public source, and several useful provisions were made and several useful Acts of a medical order were passed by the Board. So great indeed was Mr. Chadwick's influence in Parliament, although he never had a seat in that House, that the Government were actually defeated in 1854 on the Bill to continue the Board of Health; and the animosity which was raging against the Board, and particularly against Mr. Chadwick as its chief working member, had that critical opportunity for making itself felt. The opponents of the Board insisted that the Act of 1848, which had become law under the express provision that it should continue in operation only for five years, should not be renewed except with a radical re-constitution of the central authority, and, in effect, with Mr. Chadwick's removal from office. Lord Palmerston brought forward the Government proposal to renew the Act, subject only to a control to be exercised over the Board by the Home Secretary. The Board, he said, "Had had to manage arrangements which conflicted with the fair and legitimate interests of many very intelligent and very active men." They had interfered with the lucrative business of obtaining Local Acts, with the profits of water companies, actual and projected, and with the previous opinions and employment of local engineers, and, "all things considered, it was not to be wondered at that great prejudice should be created against them, in many respects without good and proper justification."

Opposition to the Government proposal was moved by Lord Seymour in a strong and very bitter speech; others followed in the same tone, siding with the offended interests, and the leader of the House, Lord John Russell, closed the debate. In doing so, he referred particularly to the personal attacks which had been made on Mr. Chadwick, and here, though he dwelt with earnestness on his sense of Mr. Chadwick's eminent merits and services, he seemed not able to withhold from the House that, in his opinion, Mr. Chadwick had been an injudicious administrator. "Like many other men, ardent reformers, he very often, in his zeal for amendment as he conceived it, overlooked or disregarded the objection and repugnance with which his views and

propositions were received by others. With respect to this Health of Towns Act, no doubt in many instances Mr. Chadwick's proposals (like his proposals formerly at the Poor Law Board) had given offence, for obviously many towns would rather be let alone. There were likewise many persons, who were pecuniarily interested that the plans of the Board should not be adopted, and it was very probable that Mr. Chadwick had not observed towards these classes of people the most conciliatory tone possible."

The Bill proposing to continue the Board was defeated by a majority of 74 to 65, and on the following day the first Commissioner of the Board of Works introduced the Public Health Bill of 1854, giving effect to the views of the majority. But Mr. Chadwick had laid the foundation of sanitary reform. The newly-constituted Board lasted four years, and was coincident with the year of Army sanitary reform, resulting from the Crimean experiences and the Crimean Sanitary Commission.

The medical machinery of the Privy Council, which took over the work in 1859, was the gradual working out of Mr. Chadwick's ideas under the expert advice of Sir John Simon.

In 1869 was appointed the memorable Royal Sanitary Commission, which reported in 1871, and on the publication of the Report of that Commission it was left to the President of the Poor Law Board, Mr. Goschen, afterwards Viscount Goschen, to move the two Government Bills which expressed his scheme for the formation of the Local Government Board. The scheme was worthy of Mr. Goschen's exceptional powers. The new Board welded together the staff of the Poor Law Board, the staff of the General Registry Office, the staff of the Local Government Act Office, and, with limitations, the administrative staff of the Medical Department of the Privy Council Office. As is the rule in British politics and British institutions, the Board was a compromise. It was the result of a struggle between the Poor Law administration, which is essentially a non-medical affair, representing large financial operations, and the public health administration of the Privy Council, which should be essentially a medical affair and representing the power of only a small purse. It is not to be wondered at that the Poor Law Board gained the mastery, and the Local Government Board in consequence represented the result of this struggle in the comparatively insignificant position assigned to medical experts of the Board. Acts of the Board were to give legislative effect to the recommendations of the Royal Sanitary Commission, and a series of Acts were passed which need not be recapitulated here; but the climax was reached in the passing of the consolidating Public Health Act of 1875, which included the results of all recent public health legislation. In the passing of this Act Mr. Stansfield, as President of the Board in Mr. Gladstone's first ministry, played the chief part, and was well supported by the party in power. But in the House itself it cannot be said that medical men played a prominent part. The work was essentially the work of laymen, founded on the expert evidence of Sir John Simon for the Local Government Board, and of a whole host of medical witnesses to the various Royal Commissions that had led to the creation of the Board.

FUNCTIONS OF THE MEDICAL M.P.

This brings us to the question whether, indeed, the needs of Government require direct representation of medical men in the House of Commons at all. It is obvious that the profession has never been represented by those whom it would itself have chosen to represent their views either in or out of Parliament. Indeed, one may say that the best representative of their views of recent years has probably been the late Lord Playfair, who, although a distinguished chemist, was never a medical man. Why, indeed, is it that lawyers are so largely represented in the House? Is it a question of mere professional ambition? Obviously it cannot only be that, for their very numbers in the House, in proportion to the total numbers of their profession, must show that they are found peculiarly fitted to represent the interests of the public at large in Parliament. Indeed, the lawyer will say that it is his business to represent all interests, of whatever kind, in the courts, and I think it is within the experience of most of us within this room —it certainly is within that of most consulting physicians, surgeons, and medical officers of health—that the power of an eminent barrister to master the technicalities of an intricate scientific case is quite marvellous. It is true that the barrister does not usually master them in such a way as to be able to take his part in a scientific discussion on the general problem, but for the practical purposes of his case he will, after a single night's work with a couple of text-books and a consultation with a couple of experts, be able to hold his own as regards that particular case with any evidence, expert or otherwise, in the world. On the other hand, if there are lawyers who will thus master the case on one side, there are also lawyers who will master it with equal ability on the other, and even the judge is often unable to decide between the two, or decides wrong.

Besides, the truth often comes out only after many years, as the result of expert work. Here, then, is the need for medical men, as such, in Parliament, It is the need not for an expert witness, but for a guide to the House to decide between expert witnesses. However expert he is, the House will only say, as regards his personal evidence, that that is his own personal opinion; but if with the experience that he brings to bear he can show reason for leaning to one expert opinion rather than to another, on the principle of setting a thief to catch a thief, then he will be filling a position which no laymen can fill in Parliament.

The influence of the medical man in Parliament, however, is bound to depend far more upon his personality than upon any amount of professional merit. My own appointment brings me in touch with a local Parliament, namely, the County Council of Hertfordshire; and in the proceedings of that body, and of its

committees, one has a reflection of the proceedings of the House of Commons. It makes little difference what degrees the medical man has. He is a doctor, and his evidence is *primâ facie*, a fact to be disputed or not by other doctors regardless of their qualifications; and his conclusions to be adopted—well, that is sometimes a question of votes. In the end the electorate must decide.

It was, to my mind, significant that when I first discussed with the Clerk of the County Council the conditions of my present post, and pointed out my lack of experience and total inability to do justice to a position of such importance, as compared with the many dozen candidates who would reply to an advertisement of the vacancy, his answer was that he knew my meaning only too well. If the Council advertised, there would be 100 applications within a week, and many from men with long strings of letters after their names. The choice of the Council would fall, perhaps, on the one with the greatest number of letters, and an unpractical and unbusinesslike appointment would probably result. In other words, he preferred, and those for whom he acted on the County Council preferred, to choose a man by his personality, or, as in my case, by his stake in the country, rather than by his knowledge. Since then I have had six years' work for this local parliament, and it has become evident that results are achieved by the gradual education of the authority and by often agreeing passively to things, of which one may scientifically disapprove, in order to get what one wishes by a side wind. The essential thing is to size up the personality of the councillors according to their relative value; to deal with everyone as occasion may serve, but more especially with those with greatest influence; to work on their minds from their own points of view, and not from yours, and to take their petty economies with a good grace. If this is so in the County Council, it is so in Parliament. Until Sir William Church was elected on the Herts County Council a month ago, there was not a single medical man upon it; but I would far rather that were so than that there had been some inadequate representative, to whom the Council would have been compelled to defer, rather than to their own medical officer. So it is in Parliament. I do not think that we need very much deplore the absence of medical men in Parliament unless we can get the best, and by the best I mean the shrewdest and those with the greatest proportion of common sense.

But if we can get good men of this calibre to enter Parliament and become living members of the Parliamentary profession, and not mere interesting anomalies, in their midst for a few years, then it would seem that the influence such men might exercise would be of unique value. The experience of those actively concerned in the medical representation in Parliament may be of value. In 1899 the late Sir Richard Thorne Thorne, then Medical Officer to the Local Government Board, entered most systematically into my scheme for taking up a Parliamentary future as a definite speciality in the profession. He said that whenever any question of public health came before Parliament on which it was desired to have medical opinion it was necessary for them to ask one of the medical members of the House to come over to the Board and to be definitely instructed into the facts of the case. None of them, as he pointed out, had had any experience to speak of in public health work, and those who are concerned in the work of preventive medicine know how totally different is the aspect of that to the curative side of the profession.

Sir Richard Thorne Thorne advised me, therefore, to study public health from every possible point of view; to study it abroad; to study it throughout the empire; to study it in our town and in our country districts in order to be cognisant of the field of questions likely to come before Parliament and to know where to go for the latest information on the subject. Above all, it was necessary to undertake responsible work in the machine of sanitary administration in order to have had direct experience of the difficulties that invariably arise in carrying out measures, however excellent they may appear as they are put in the statute book.

When I first took up the idea of training for eventual parliamentary work, it was my good fortune to have the personal advice of the late Sir J. Burdon Sanderson, of Professor Arthur Thomson, and of one or two others of my teachers. Only two or three years before his death Sir J. Burdon Sanderson, when discussing this matter at length asked, "What is it, then, you wish to do? Do you wish to become an expert? If so, you should go abroad for five years and undertake research work in some particular branch of your subject that may be of permanent value." "Not a bit of it," was the reply of another of my advisors to whom I related this conversation. The expert, as he pointed out, is known as an expert, and his opinion on every matter, except the minute field of his special experience, is considered as of less value than that of the average layman. And rightly so. The research worker in a laboratory is a hermit. His field of experience is very small, and the further he goes into his own subject the less sense has he of its proportion to life as a whole; and if a mere research worker, however important his work on opsonins and the spirochætes may be, were to enter the House of Commons, it would be difficult for us in our profession to consider him as useful a representative as a man who had engaged in work in contact with his fellow creatures outside the profession.

Then I may quote the opinion of two of the chief medical representatives in Parliament in recent years.

A year or two ago, after he had crossed the floor of the House of Commons, and a few months before he was turned out at the general election of 1906, the late Sir Michael Foster asked me to spend a day at his place, near Cambridge, to talk the whole matter over. One of the first things that he emphasized was the need of a medical member attaching himself definitely from the first to one party. He recognised how much he had lost by his own change of front. He had been urged into the House of Commons by his friends, in order that he might express the opinions, not only of medicine, but of the scientific world as (for so many years) secretary of the

Royal Society and Professor at Cambridge, and it was only in small degree that he considered it necessary to have any decided opinion with regard to the great questions that divided the parties of the day. It was the khaki election, and was mainly fought upon the continuance of the South African War, which resulted in an otherwise somewhat unnatural majority for the party then in power. Indeed, to the Unionist party he had special attachments through his intimate friend at Cambridge, the great comparative morphologist, Francis Balfour, brother of the leader of the Unionist party in the House of Commons. While readily listened to, however, in the House of Commons on medical subjects, he felt his mind more in sympathy with the growing Liberal feeling that culminated in the surprising change at the last general election; and he felt it his duty in 1903 to join the other side. In so doing, however, he felt that he had not only incurred an immense amount of personal inconvenience, but that he had lost very largely in power in the House.

THE PARTY SYSTEM.

This, indeed, seems inevitable from a consideration of party government. You may be right or you may be wrong in deploring the party system, just as you may be right or you may be wrong in pointing out the waste of energy between stroke and bow side in an eight-oared boat. But as matters stand, and as they are likely to stand for a considerable time to come, parties, and therefore members, stand and fall with their political platforms. The motto of parliamentary work is "Union is strength." The party agree to support certain measures in the same way as the soldier agrees to support the general interests of his country in a campaign planned by his commander-in-chief. Just as it would be impossible for a single soldier or a single officer, however highly placed, to take his individual line in the field, or for any oar in the boat to row his own time regardless of stroke, so is it useless for an individual man to think of playing a prominent part in Parliament unless he becomes a loyal adherent of one of the leading parties in the House.

This, I think, is especially the case at the present time with the growth of scientific knowledge. Medicine is qualified to represent the whole of science, because she works on the borderland between scientific facts and humanity. She concerns herself with the play of scientific affairs on mankind. She is accustomed to think scientifically, but to practise humanely, and therefore she is peculiarly fitted to appreciate scientific progress in every kind and branch of learning, and to interpret and expound it to the laity. Medical men, indeed, should be the prophets of scientific knowledge and method to Parliament and to the whole nation.

It must strike everyone, and especially those members of our profession who are concerned in the wider studies and operations of preventive medicine, that science is playing, and in future is bound to play, a gradually increasing part in the work of every profession and every calling of life, and it is for that reason that well-equipped exponents of medical and sanitary science are required in Parliament. For the medical man has this further pull over other exponents of modern science, that he deals with things of vital importance to every individual—interests that appeal to the heart as well as to the mind of every public man.

THE OPPORTUNITIES OF THE MEDICAL M.P.

Let us consider, then, for a brief space the points on which a medical man should give evidence, and the opportunities which he will have for exerting his influence in the House. Take an ordinary list such as I have here of the Public Bills of any one session. I have analysed, roughly speaking, the 289 Public Bills introduced into either House of Parliament this session, and of these it would seem that on 141 there is need of definite medical opinion—in other words, that one-half of the Public Bills introduced into either House require medical views for their solution.

In addition to Public Bills, are 35 Provisional Order Bills, 20 Confirmation Bills, and 134 Private Bills, a large proportion of the latter dealing with water, sewage, and other works of public health. It would seem advisable, therefore, that a medical man shaping his career from the first with a view to the House of Commons, should be an expert in public health. Not only does this work cultivate the habit of thinking in masses and dealing with them, but it is with that side of medical work that he will be more particularly confronted and must be competent to deal, as the mere therapeutist can seldom be. Moreover, through dealing with public health work, the principles of which are generally accepted in all quarters of the House, and the opposition to which is mainly a question of vested interests, soluble only by time and experience, he will have acquired influence in settling matters that deal with the particular questions affecting the medical profession, either individually or as a whole.

On this point a caution is required. If a medical man goes in as a representative of his profession he is looked upon at once as being a trades unionist battling for the rights and privileges of his profession, and if he is known in that capacity by the rest of the House his influence will be comparatively small. Although at one time I thought that a man should be supported directly by the British Medical Association, I am now firmly convinced that he should maintain an official independence from that and all other organisations for medical defence, and when questions of medical privilege are raised should work as much as possible behind the scenes beforehand, and in quiet; for by the time a matter has reached the stage of public debate it is probably past mending. I think it may be for lack of this policy of moderation in defending professional rights that certain medical representatives in the House have failed to gain the influence in general medical questions that was expected of them.

Lastly, I would urge you, gentlemen of the Oxford Medical Society, to encourage men of the right stamp to prepare themselves to become specialists in Parliamentary

medicine and in due time to enter the House. It is at Oxford that there are many men who now are, or at some future stage in their lives may be, possessed of private means which will place them above the necessity of earning their own livelihood. There are many such men who on leaving Oxford are hard put to it to choose a profession or an occupation in life. Without any aim they paddle through the pass schools and disappear into space. After a year or two of idleness they may travel round the world and read for the Bar, and when it comes to taking their part in local government in the neighbourhood of their paternal property, or in taking the same part in public affairs, they begin to wish that they had some experience which would raise them above the level of their fellows. It is easy for us to see what an enormous advantage such a man would have had he been through even only the pass schools of medicine and qualified as a medical man. I think this possibility should be definitely pointed out, by all those who are responsible, to undergraduates who may eventually be in a position to stand for Parliament. We know further that those whose necessities in life are already provided for will find few discomforts and a very large number of advantages from their hospital career at the stage when a man, above all, wants to be engaged in definite work and associated with his fellows. The hospital gives him such interests and associations as cannot fail to stimulate his whole life. He not only acquires knowledge, but he learns the responsibility of life and death. He not only learns to face every problem with which he is confronted by accurate diagnosis and a statement of facts, but he learns how to take a life in his hands and deal with it with the best means at his disposal, to recognise its weaknesses, to make use of its strength, and to look to the after-results in life or on the post-mortem table, checking the correctness of his work and the accuracy of his diagnosis in order that he may do better next time. It is this orderly habit of thought, unique experience and responsibility, shared only I should say by a sailor on duty or a soldier on active service, that, in the words of one of my most distinguished contemporaries in the schools, makes the medical profession the best all-round training for any man of affairs.

Gentlemen, Oxford has it in her power, and you have it in your power, to induce Oxford to raise up in future a new race of statesmen in touch with the ancient knowledge and traditions of this University, to fire Parliament and the nation with the spirit of modern science and method. In the words of Sir John Burdon Sanderson, in a letter of advice to myself, "Science is great, and will prevail."

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; The Nursing Times; My Journal; Archives of the Roentgen Ray; The M.S. Journal; Broad Way; New York State Journal of Medicine.

Two Cases from Clinical.

I.—A CASE OF INTUSSUSCEPTION PROBABLY DUE TO TRAUMA OF THE INTESTINE.

J. O'C., æt. 10, was admitted into John ward, under Dr. Hertz, on July 12th, for abdominal pain and constipation. He was quite well until Saturday the 10th, when he was hit in the abdomen with a cricket ball. The force was sufficient to knock him over. He suffered little effect from the accident until next day, when he had pain in the abdomen. His bowels acted; nothing but a slight amount of blood was passed. At midnight he vomited, and this symptom persisted during the early hours of Monday, when he was admitted.

On admission, at 7.45 a.m., his pulse was 80, his temperature 99°, and rate of respiration was 24. He was in great pain. The tenderness was most marked over the descending colon. There was marked rigidity over the left hypochondriac region. No tumour could be felt. Rectal examination was negative, and no trace of blood was on the examining finger.

Enema saponis was administered at once. A little blood and a small quantity of mucus passed, but no fæces. At 10 a.m. patient was quite comfortable, and the abdomen was not tender. At 4 p.m. the pain returned and a tumour was felt in the left hypochondriac region; it was diagnosed as an intussusception. At 7 p.m. Mr. Fagge operated. The tumour proved to be the transverse colon, which had intussuscepted for about four inches into itself, the splenic flexure, and the first part of the descending colon. Reduction was quite easy. The colon was slightly inflamed and a small hæmatoma was present in the wall of the transverse colon. A smaller intussusception, one inch in length, was seen in the ileum. The ileo-cæcal region was normal. Patient was restless during the night. Castor oil was given next day, and the bowels acted on the 14th. Three weeks later patient left the hospital quite well.

The interesting points in connection with the case may be summed up as follows:—Intussusceptions are uncommon after the age of five. The transverse colon is a comparatively rare situation for them. The intussusception was so easily reduced that it is improbable that the hæmorrhage into the intestinal mucous membrane could have resulted from strangulation. As the blow on the abdomen immediately preceded the onset of symptoms it is probable that it caused the hæmorrhage, and that the hæmatoma had led to the production of the intussusception, just as a polypus or carcinoma of the colon occasionally causes one.

II.—A CASE OF ANILINE POISONING.

W. H. S., æt. 48, was admitted into John ward, under Dr. Hertz, at 12.45 p.m., on July 14th. At 11.30 a.m. the patient had drunk, in mistake for ale, about three ounces of aniline sulphite solution (made by dissolving

three handfuls of the crystal in a pail of water), which is used for testing purposes in the manufacture of paper. Noticing the peculiar taste he rinsed his mouth immediately and then proceeded with his work. Twenty minutes later his fellow workmen remarked that he was looking ill, but it was not till another thirty minutes had elapsed that he himself noticed any symptoms. He then became giddy and weak, his heart palpitated, and he sweated profusely. He then fell down, but did not lose consciousness. He had no pain whatever. His companions gave him salt solution, which caused vomiting on his way to hospital.

On admission, patient had a livid grey colour, and was rapidly becoming weaker. His stomach was at once washed out, oxygen was administered continuously from a mask, and a pint of normal saline solution was infused into each axilla. The patient was quite comfortable, and there was no dyspnœa; his temperature was 99°, his respiration 24, and pulse 114. The blood, which was chocolate-brown in colour, contained methæmoglobin. Histologically, there was nothing abnormal in the appearance of the red cells. At 2 p.m. the patient's colour showed slight improvement: his pulse was good, but his respiration was rather shallow. At 3 p.m. oxygen was given *per rectum* in addition to that administered from the mask. Half an hour later patient became rapidly more drowsy, especially during the few seconds that oxygen was not given, owing to changing the cylinder. Cheyne-Stokes respiration developed, but the pulse was still good.

At 4 p.m. the patient was deeply comatose, and respiration very shallow, but there was no dyspnœa. A few minutes later respiration ceased. Artificial respiration was performed and normal respiration soon returned, but the patient was still comatose.

At 5 p.m. breathing was better. The patient's grey colour had not changed in the slightest degree since 2 p.m. He was now given a minim of croton oil in milk by a nasal tube.

At 6 p.m. he was still comatose. Pulse 84, respiration 28, temperature 103°.

At 9 p.m. he had a nasal feed of milk, egg, and brandy.

At 10 p.m. he was still comatose.

At 11 p.m. he was rather restless, and frequently moved his head in order to throw off the oxygen mask. On being told to remain quiet he showed signs of consciousness for the first time since 3.30 p.m.

His breathing had much improved by mid night, and at 1 a.m. next morning his colour began to improve. Respiration was excellent.

At 2 a.m. he was more restless. Pulse and respiration were normal, and temperature 100°. Oxygen was no longer administered. The colour was much the same as at 1 a.m.

During the rest of the night his condition gradually improved, and at 9 a.m. his colour was normal. He now slept naturally, and afterwards was quite conscious. His blood now contained 80 per cent. hæmoglobin, and no methæmoglobin was present. The croton oil had caused five evacuations of the bowels, and the stools were quite chocolate in colour, suggesting the presence of a large amount of methæmoglobin. The urine was normal, no methæmoglobin being excreted in it.

On the 17th he was allowed to get up, and on the 18th he left the hospital, quite well. A week later he reported that he was quite in his usual state of health.

The following important conclusions can be drawn from this case :—

1. The symptoms of aniline poison are due to defective oxygenation of the tissues from the conversion of oxy-hæmoglobin into methæmoglobin.

2. Methæmoglobin is reconverted into oxy-hæmoglobin within the body much more rapidly than physiological experiments would lead one to expect.

3. The red corpuscles are unaffected, no methæmoglobin being discharged into the blood-plasma or excreted in the urine.

4. The experiments of Haldane, showing that an animal which has not sufficient hæmoglobin left to support life in air can live in an atmosphere of pure oxygen, are shown to apply with equal force to similar conditions in man. In the arterial blood of a man breathing air there is about 18·5 per cent. oxygen in combination with hæmoglobin, and 0·6 per cent. in simple solution. When pure oxygen is breathed there is about 18·7 per cent. in combination and 3 per cent. in solution. The oxygen in simple solution is much more easily used by the tissues than that in combination, so that in an atmosphere of pure oxygen the amount of easily available oxygen is largely increased, and is sufficient to maintain life even when the quantity in combination is very greatly reduced.

5. From conclusions 2 and 4 it follows that in all cases of poisoning by aniline, nitrites, etc., in which methæmoglobinæmia occurs, the continuous administration of pure oxygen by mouth and rectum, and, if necessary, artificial respiration, should be employed for several hours without intermission, as recovery will almost certainly occur, even if the patient, as in this case, appears moribund. T. F. B.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Blues for Rifle Shooting.

DEAR SIR,—I notice in your issue of the 7th ult., "half blues" were awarded for shooting.

Is this retrospective, this awarding of half blues?

I had the honour to represent the Hospital in a shoot when we won the Inter-Hospital Cup ('98, I think it was), but we were then under a cloud.

Naturally, if old Guy's men who served with the rifle are to be recognised, I want to be there.—Yours faithfully,

"ARTIST."

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The After-Treatment of Operations. By P. Lockhart Mummery, F.R.C.S. (Baillière, Tindall & Cox.) Price 5s. net.

Mr. Lockhart Mummery's valuable little book is by this time so well known and appreciated that, in welcoming this, the third edition, we need do no more than indicate the changes and additions which have been found necessary or desirable. The after-treatment of operation cases is a branch of surgery which has latterly made rapid strides, as its great importance has been more fully realised, so that it has been necessary, for instance, to revise the chapter on shock and collapse, in the light of the experimental work. Mr. Mummery remarks that it must now be the endeavour of the surgeon to eliminate shock from his operations as completely as he has been able to eliminate sepsis.

Among the other alterations are the addition of a short article on the vaccine treatment of sepsis, and the enlargement of the chapters on abdominal surgery.

We can recommend house-surgeons and practitioners who have to take charge of operation cases, if they do not already know this book, to make its acquaintance.

The Genesis and Evolution of the Individual Soul. By the Rev. J. O. Bevan, M.A. (Williams & Norgate.) Price 2s. 6d.

This book is an attempt to apply scientific methods of observation and induction to the elucidation of one of the profoundest problems of religion and philosophy. It is a small book of quite inadequate size to deal fully with the subject, and is to that extent unsatisfactory, as it is of necessity merely suggestive and entirely non-committal.

The theory propounded by the author is founded on the old idea of other conditions of existence in four and more dimensions.

The argument is of a rather discontinuous nature, and no detailed treatment is attempted. For this reason the book is unconvincing, but is sufficiently suggestive to prove interesting to the general reader.

Papers, etc., Received.

The Earlswood Asylum Report for 1909.—One of the main principles guiding the management of this institution is suggested on the cover of this report, where we read, "Printed by the Inmates, at the Asylum." No less than 174 of the inmates are usefully employed in printing, carpentering, bootmaking and other useful trades. Dr. Caldecott, in his report, chronicles a year of sure and steady progress, and comments on some of the more controversial points raised by the Report of the Royal Commission on the care and control of the Feeble-minded, and strikes an important warning note: "Is it, under any circumstances, advisable to include *mentally deficient* persons in the same category as *mentally affected* persons."

The report of the Earlswood Asylum should be read by all who have the care of the feeble-minded and mentally defective at heart.

Papers by Guy's Men.

William Sheen, M.S. Lond., F.R.C.S. Eng.: The Etiology of Hernia.—*The Practitioner*, September 1909.

Thomas G. Stevens, M.D. Lond., F.R.C.S. Eng.: Dysmenorrhœa.—*Clinical Journal*, 11th August, 1909.

Walter R. Wood, L.R.C.P. Lond., M.R.C.S., L.D.S. Eng. (and another): A Report of the Brighton and District Public Dental Service.—*British Dental Journal*, August 16th, 1909.

Births.

GROVE.—On 8th August, at St. Ives, Huntingdonshire, the wife of W. R. Grove, M.D., of a daughter.

PENNY.—On 27th August, at 6, Ulundi Road, Blackheath, the wife of Charles B. Penny, M.B., of a son.

STAMM.—On 27th August, at 43, High Road, Streatham, S.W., the wife of Louis Edward Stamm, M.D., of a son.

Marriages.

HUGO—NEWTON.—On 7th July, at St. John's Church, Dalhousie, Punjab, by the Rev. G. A. Campbell-Bell, M.A., Major E. V. Hugo, M.D., B.S. Lond., F.R.C.S., Indian Medical Service, Lahore, to Helen Frances, third daughter of the late E. J. Newton, Esq., Peterborough, and of Mrs. Newton, Lincoln.

WELLS—ROWE.—At Lima, Peru, South America, at the Anglo-American Church, by the Rev. A. Miles Moss, Stanley Martin Wells, F.R.C.S., eldest son of the late M. B. Wells, Esq., and Mrs. Wells, of Lima, to Ethel Margaret, only daughter of the late James Graham Rowe and Mrs. Rowe, of Valparaiso, Chile.

Deaths.

BOWES.—On 27th August, at East Hill House, Herne Bay, John Bowes, M.R.C.S. Eng., L.R.C.P. Lond., aged 75.

SWATMAN.—On 12th August, at Kelshall Rectory, the Rev. Phillip Swatman, Rector of Kelshall, formerly Chaplain of Guy's Hospital, in his 85th year.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

September.

Tues. 21. (And two following days). Entrance Scholarship Examinations.

Thu. 23. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Tolhurst).

Thu. 30. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Price and Lucey).

October.

Fri. 1. Winter Session Commences.

To the New Men Only.

HAVING decided to enter the profession of medicine (in spite of the gloomy warnings of the inevitable pessimistic friend who is always ready to declare that there is no living to be made either in this or any other profession, to dwell on the miseries of a doctor's life, and so forth), your next step was to decide on a medical school, and for one reason or another, perhaps even blind chance, you decided to come to Guy's. For you and for us that is the supremely important fact. Very possibly it is at present to you but one hospital among many—just *a* hospital, but you will have been but a few days among us before it becomes to you, as to us, *the* hospital.

It is the privilege of the GAZETTE to give you the heartiest of welcomes, in the name of the community you are now joining, and it is probably the only welcome of an official nature that you will get. We are not accustomed at Guy's to have an introductory address, such as those delivered at the opening of the winter session in many medical schools, when some eminent man discourses on the nobility of the medical profession, or the advances of science, or some equally banal topic. Why should we welcome you by telling you that you are entering a noble profession? It is noble or ignoble as its practitioners make it, and it is by no means incapable of improvement. In fact, it is not different in kind to the other professions, but it remains one of the most honoured, and it must always be one of the most absorbing, of them all; for, as Lydgate remarked:—"One can have the exclusive scientific life that touches the distance, and befriend the old fogies in the parish too. . . . There is nothing like the medical profession for that." And so we may be pardoned for feeling, with Lydgate, a "triumphant delight" in our profession, and "something like pity for those less lucky men" who do not belong to it.

This number of the GAZETTE, which will be handed to you at the important moment when you become a Guy's man, is devoted mainly to your needs. It endeavours to help you in the first days of unfamiliarity with the place and your fellows, and to describe something of the opportunities for work and play which now become yours as a Guy's man. Make use of those opportunities while they are yours, for they are valuable, but not everlasting. On the one hand, you will have at Guy's almost unrivalled opportunities for gaining familiarity with the practical and clinical side of your life work, and, on the other, as a member of the Clubs' Union, you will have an opportunity of sharing in all the games and clubs which form the recreative side of hospital life.

We will not here give you advice. Our friend the Philosopher does that elsewhere in this number. Moreover, we have always felt that the hospital motto, "Dare quam accipere," applied to nothing more forcibly than to advice. But

there are a few suggestions of a negative character, some "Don'ts," in fact, to which we would direct your attention:—

Don't forget that the place was a hospital before it was a medical school.

Don't imagine that you are not wanted here.

Don't imagine that you are so much wanted that the place could not get on without you.

Don't take things too seriously.

Don't take things too lightly.

Don't pose as a physiologist in the dissecting room, and as an anatomist in the physiological department; nor as a surgeon in the medical wards, and as a physician in the surgical.

Don't pose at all.

Don't, as a junior man, look down on senior men.

Don't, as a senior man, look down on junior men.

Don't take these well-meant hints in bad part.

You have come to work with us and among us, and to share, and perhaps increase, the great traditions of the place. We welcome you into the "brotherhood of Guy's men," no mere empty phrase, but an order whose members, of all ages, in all parts of the world, remember this Borough hospital with that affection which men have for the place where they gained their manhood.

And now it is the Philosopher's turn: we commend you to him.

De Profundis Vox.

IT is a very excellent custom that, with the coming of October and the appearance of many new faces upon the ever-changing stage of our Guy's drama, the Sage who presides in the sanctum of the GAZETTE should cease the quill-driving which, by virtue of his office as hospital historian is his task, and, having assumed for the time being the Cap of Knowledge, should summon his friend the Philosopher, and order him to set forth and declare a welcome suitable to the day.

With such an apologia, therefore, we resume our annual duties, and we would have you know at the outset that we are not about to deliver either oration or sermon; ours is merely to extend the hand of friendship, announcing the newcomer, speeding the parting guest. On such occasions it is much better to speak quite straight and to the point, for he who has tasted both the bitter and the sweet of life had far better declare at once how bitter was the one, and how lasting the memory of the other.

There are doubtless many people who would begin by congratulating you, the new arrivals, upon your choice of a hospital, this building which, while only two centuries old, is yet venerable with a long list of famous names. But we dissent. We yield to none in our admiration for the illustrious dead of Guy's, men who have made the fame of their old hospital world-wide; but we believe that in these days of ease and luxury there is too much of pointing to the glorious past, and that if you would add further laurels to your hospital, and be a credit to your school, then you must believe in the present, and believe still more in the future.

Most of you who are starting work here this October have just left school, possibly with very great regret after years of happiness with a house-master, whom in after years you will come to recognise as the first great friend and help of your life. He it was who prodded you along when you were slack or in need of encouragement; he it was who restrained you with an almost parental hand when, restless, you would have enslaved yourself in that unbridled freedom—the gratification of self. You have come, perhaps, from a school where you had ideals and ambitions, they were none the less real because they were concerned with a small world; from a school where you had many triumphs, they are all the greater and the more to be commended in that you attained them before you reached man's estate. What we would urge upon you now is this:—you are come to a larger world with the additional responsibility of working without direct supervision; your success in your hospital career will be largely the result of your *own* unaided effort; there is all the more need for an ideal, and there will be all the greater happiness yours when you reach the goal.

To many of you, again, the work will be entirely new. Anatomy and Physiology are subjects which comparatively few people are privileged to study. You will no doubt be deeply interested in your new work, and we both desire and admire your enthusiasm, but for heaven's sake let your keenness be tempered by self-control. There is no more hideous deformity of development than the medical embryo who persists and delights in babbling "shop" at all times and in all places. We know him. We have met him in the railway-carriage, in the restaurant, at the theatre, at the dinner-table, and we repeat that he is odiously repulsive.

In course of time, not perhaps without some failures, you will reach your work in the hospital wards, and you will realize to the full the possibilities of your profession and the intense fascination of the work. We are, however, going to speak perfectly straight to you, as we said at the outset, and especially to you, sir, with the London Intermediate Honours or the Primary Fellowship at your back. You will find yourselves working on an equal footing with men of all shades of ability. Of you all will be demanded a host of small services, to be given in an ungrudging manner, asking nothing in return of a house-surgeon who will expect your very utmost, and he, very often, your junior in years, and your inferior in academic distinction. As Robert Louis Stevenson has said: "With each day bringing its petty round of irritating concerns and duties, see that you play the man; see that you perform them with laughter and bright faces, let cheerfulness abound with industry, and so come to your resting beds, weary and content and undishonoured."

If with the carrying of screens and pails and other surgical impedimenta, you are apt to feel somewhat of a martyr, remember that there are women around you, ladies who, in some cases, have not hesitated to give up ease, refinement, and luxury, in order that they may perform the most menial acts, devote their lives, and oftentimes sacrifice their health, for the welfare of the poor of South London. All through your various appointments, this necessity for self-sacrifice will become more and more apparent, and in proportion as you give up much, so will you appreciate the joys of hospital life the more. Men who in the Anatomy Room were merely acquaintances, now become firm friends, and we can only assure you that these hospital friendships, which are consecrated by mutual service, are for all time. Mere accidents of time and place—the silence of years which follows the beckoning of the hand of Death, the separations of seas which come with foreign service—these only serve to hallow and intensify memories which are an Immortality.

We have not forgotten that the majority of you are starting hospital work because you must some day undertake the responsibilities of earning a living; some few, more fortunate in circumstance, because the calling attracts you, disclosing as it does an ever-widening horizon leading to a great unknown. But whether for purposes of livelihood or with the double objective of benefiting humanity at large and enjoying the fascinations of research, remember always that you will assuredly come face to face with the problems of Providence, with matters against which the wit of man for generations past has struggled and turned away, baffled, complaining and unsatisfied. Only see to it that in your conduct, whether the task be elementary or advanced, the load light or heavy, you do not allow your actions to be misdirected by an entirely selfish and petty spirit.

From whichever point of view you survey the future field of your labours, this profession which you have now adopted is going to make a call upon the remaining years of your life. You may neglect the summons or under-estimate its importance, but the demand will nevertheless be made upon your person, your pocket, and all that you possess. The profession is not a money-making one. If you merely desire wealth, it would be far better to invest your patrimony in a first-class grocery business, but what we can assure you of, with confidence, is this—there will come an interest in work and an enjoyment of mere living which is born of no other calling. The real enjoyment of life comes only by helping other people, less fortunate in circumstance, to enjoy theirs. Honours, emoluments, wealth, fall into insignificance beside this first principle of existence. It would be idle to deny that there are disappointments ahead, but if the greatest of these will prove to be merely the failure to obtain some appointment or distinction upon which you have set your heart, then you may count yourself a very happy man.

We, too, are not without our disappointments, our hideous failures, and some of these touch matters the memory of which will be for all time, but it is because we, happy in remembering, can look back with peace upon the past, that we can turn to you who represent both the present and the future of our dear old hospital, giving you welcome and farewell.

We from the beyond salute you, and so goodbye.

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; St. Bartholomew's Hospital Journal; Reichs-Medizinal-Anzeiger; The Natal Spectator (Vol. I. No. 1.); South African Medical Record; My Journal; British Health Review; The Nursing Times; The Stethoscope.

Mr. Hopson's Lecture on Heredity

ERRATA:

In figure 4, *both* the male gametes of P_1 should be represented by a black transverse line.

P. 357, the first word of the second paragraph should read "Colyer," and not "Colzer."

Footnote at end—for figure 9 read figure 8.

Passim.

At six o'clock last Saturday morning one of the greatest changes there has been for many years in the general arrangements of the hospital quietly took place. The Front Surgery in the Colonnade, having done its last night's work as a casualty department, was closed, and the first patients on Saturday morning were directed to the new Surgery in Maze Pond. To anyone about the hospital who had time to meditate on these matters it was sad to realise that "the Front," as we had known it, was no more; that the Colonnade, associated since the hospital was founded with the entrance of accident cases (as shown in the chapel memorial to Guy) and their attendant policemen, should be crossed no more by those grim and tragic, if often sordid, processions. Familiar stereotyped phrases which had come reflexly to the tongue, were remembered, such as "Fourth door on the left in the big building," and "Come next time to Maze Pond." Such phrases had now no point. The closing of the old Dressers' Rooms provided more scope for the vapourings of our sentimentalist; the sitting-room and its associations with firm suppers, the bed-room, hallowed by the disturbed slumbers of a long series of take-in dressers, were remembered. We met the familiar furniture of the old rooms on its way, *via* the Park, to the new. We went to see it in its new surroundings, and it looked incongruous beside an up-to-date grate, artistically coloured walls, and modern windows overlooking the "Old Miller of Mansfield."

For the benefit of old Guy's men who have not visited the hospital lately, we may mention that the new surgery occupies the corner at the far end of Maze Pond. The entrance looks directly down the road; one limb of the angle is occupied by the men's surgery, which is the ground floor of the new building on the site of the old hop warehouse; the other limb is occupied by the women's surgery, which stands alongside the medical buildings, where the dental out-patient rooms formerly stood. The new surgery communicates directly with the Out-Patient Department, but separate entrances to the two departments are provided for patients. A great advantage in the position of the surgery is its proximity to the Dispensary, so that patients can go there immediately after being seen, and have no opportunity of losing themselves, wilfully or otherwise, in the hospital grounds and medical buildings—a fate which often befel them under the old system.

It has been suggested to us—and we think the suggestion a very good one—if it should prove feasible, that part of the old front surgery should be converted into a sitting-room for residents, dressers, and ward clerks awaiting their chiefs. Our Transatlantic visitors, too, might be glad of such a shelter. For even physicians have been known to be unpunctual, and the Colonnade, though an admirable waiting place in the summer time, is often by no means ideal in the winter. We do not know whether the fate of the old surgery has been so completely decided by the authorities that this plan is quite impossible, but we put it forward as a suggestion at any rate worthy of consideration.

Changes are taking place elsewhere also, and one which will touch all London medical students very closely is the evacuation of the Examination Hall on the Embankment by the Conjoint Board. The building has been sold to the Institution of Electrical Engineers. A site in Queen Square, Bloomsbury, has been acquired by the Board for the new Examination Hall. We understand that the change will take place in three years time. This is to be another severance of old ties! Through the associations of years the Embankment has come to have a traditional connection with exams., with certain intense quarters of an hour on the rack of the *viva voce*, and above all with the drawn-out agony of awaiting the result, and its dashed or realised hopes. Many a candidate must have looked out from the windows of the Hall, and watched the hurrying tide of human traffic across Waterloo Bridge, and the hurrying tide of the river below, and wished himself in one or the other—anywhere but where he was. Or, on the other side, there was the great opulent hotel to be seen, with a street musician playing below, and light-hearted diners round the shaded lamps—eating, drinking, chattering, and not

being examined. For intervals of waiting there were the Embankment Gardens at hand, with statues of known and unknown celebrities; or, up a little hilly street past the old Savoy Chapel, there was the moving, mundane Strand, with prospects of obtaining tea and relaxation of mind. And all these associations are to become mere memories! Queen Square, in years to come, will make its own.

We have pleasure in announcing that the Right Hon. Viscount Goschen has consented to become the new President of the Clubs' Union, in succession to Mr. Cosmo Bonsor, who has completed his two years' term of office. Lord Goschen was elected a Governor of the Hospital in 1903, and is a member of the House Committee. The Clubs' Union is indeed fortunate in its new President, and we hope that it may continue in increasing prosperity in association with his distinguished name.

It is our pleasant duty, in the name of the whole hospital, to offer our heartiest congratulations and best wishes for health and prosperity to the three popular members of the Junior Staff who have recently been married. The weddings of Dr. Cameron, Mr. Hughes and Mr. Layton complete a series of no less than eight Staff weddings which have taken place during the last thirteen months.

The Beaney Prize in Pathology for 1909 has been awarded to Mr. A. H. G. Burton.

The waters of the Fish Pond in the Park offer so few attractions as a beverage for human consumption that the authorities have not even taken the trouble to affix their favourite warning notice: "Not to be used for drinking purposes." A different view, of course, is taken by the pigeon and sparrow hordes, whose sports on the brink of the fountain do so much to enliven the dreamy hours of Park *habitués*, by a practical illustration of the physiology of swallowing. *We* do not imbibe the water of the Fish Pond because there are so many other sources of liquid refreshment available; but imagine it transferred to the heart of an arid country, and its possibilities increase enormously. Even then the drinking of its waters might be followed by unpleasant consequences. But now Lieutenant Minett, of the R.A.M.C. (Territorials), has come along and demonstrated to an audience of the hospital sisters how these waters may be used for drinking purposes with impunity. Lieutenant Minett is lecturer on water duties at Millbank, and has charge of the water section in the Territorials. Sixteen men of this section, under the charge of Corporal Evans, recently visited the hospital to have the filter candles belonging to the new Army water cart and Brownlow filter, sterilised.

A demonstration was given to the hospital sisters, and the working of the filter shown and explained practically. As a test of its efficiency, a sample of water was taken from the Fish Pond, and analysed before and after passing through the filter candles. The untreated water, we understand, was found to swarm with bacteria of various breeds; from the filtered portion, not a single organism could be cultivated.

The Committee of the Residents' Theatrical Souvenir for Christmas, 1908, have forwarded us a statement of the financial position of the scheme, which we publish elsewhere. We understand that there are still some copies of the souvenir available, and that they may be obtained from the Librarian, price 2s. 6d. each.

We regret to announce the death, at the age of seventy-five, of Dr. John Bowes, of Herne Bay, where he had practised for the last fifty years. Dr. Bowes received his medical training at Guy's in the early 'fifties. He was an ex-President of the East Kent and Canterbury Medical Society, a Fellow of the Zoological Society, and a J.P. for the County of Kent.

The following appointments have been made by the House Committee on the recommendation of the Medical Committee:—House Physicians: W. E. Wallis (Dr. Hale White), C. M. Plumptre (Sir Cooper Perry); House Surgeons: A. H. Crook (Mr. Symonds), H. Lee (Sir Alfred Fripp); Out-Patient Officers: C. A. Basker, A. A. Greenwood, H. C. Lucey, H. R. Mullins; Assistant House Surgeons: T. Evans (Mr. Steward), A. E. Lees (Mr. Fagge), S. J. Darke (Mr. Rowlands), T. F. Brown (Mr. Turner).

An Italian Olive Farm.

A MOTOR-CAR whizzed us rapidly through the streets of Florence, past the railway station, and out into the country through the suburb of Rifredi. From here we ascended a steep and tortuous road. We clung to the hill on the left and looked down into the valley on the right, and at the hills rising on the other side. Thunder was in the air, and dark clouds hung around threateningly, but later the sun burst through the grey canopy and lit up the picturesque homestead that we had come to visit. We alighted at a gateway some twenty yards below the house, and our host led the way through flower-bordered paths. A little fountain spurted in a round pond where goldfish moved slowly. A low two-storied building with a loggia on the right stood out from the hillside, which rose abruptly behind it. A beautiful della Robbia plaque was fixed above the doorway. We entered the house, and found tea waiting in the drawing-room, where we chatted about the work on the farm. Later our host led the way to the basement, lamp in hand, and conducted us to a cellar containing half-a-dozen huge covered pots, suggesting strongly those in which the "forty thieves" lay concealed. These were the amphoræ for storing the oil from the olives grown on the estate and expressed by the press in the adjoining room. This we next inspected. In part of this was a large round shallow stone basin. Revolving round a central shaft was a stone wheel which a beam set in motion. It circled round the bottom of the basin. The power was supplied by a white ox which walked round in a narrow track. The olives are put into the basin and the circling wheel crushes them to a pulp. The weight of the stone wheel is sufficient to do this without crushing the olive stones. The next process consists of placing the pulp in a sort of round iron crate, which is composed of a series of metal rings pierced with small holes and superimposed one on another, according to the amount of pulp treated. Between layers of pulp are layers of hempen mat. The huge metal crate is now placed in a press, and a metal disc is screwed down upon the pulp. The screw is worked by hand-power, and from the lower part of the press exudes a fluid of various consistence, which trickles along a gutter to an opening in the floor, beneath which a vessel is arranged to catch the brown oily stream. The vessel, when full, is set aside, and the oil gradually rises to the top, from whence it is carefully skimmed off with tin scoops.

Thus is prepared the olive oil of commerce, and it was interesting to learn that no improvements in the ancient methods have ever been devised.

Extraction of the oil by machinery has not been a success, and even horse-power instead of the slow tread of the ox has been a failure. The motor-car snorting outside seemed wholly incongruous beside the low rumble of the ox-driven oil press within. Modern machinery shouted defiance to old-world methods, though the latter hold their own in the olive farms of Italy to-day.

FREDERIC VICARS, M.D.

Acute Abdominal Symptoms of Pelvic Origin.

ABSTRACT OF A CLINICAL LECTURE BY MR. TARGETT.

GENTLEMEN, — There has been an unusual number of acute cases in Queen ward lately, and from these I have selected a few as types of acute abdominal conditions originating from diseases of the pelvic organs. In the old text-books of medicine, a ruptured pyosalpinx was given as one of the common causes of acute abdominal symptoms, along with perforated gastric ulcer and internal strangulation of bowel. But morbid anatomy changes with the times, and it is now very rare for an ordinary pyosalpinx to rupture into the general peritoneal cavity. The explanation may be sought in the nature of the infection which gives rise to the pyosalpinx. Formerly a virulent infection following labour or abortion led to rapid suppuration and distension of the Fallopian tubes, with sloughing of their walls. But now the great improvements in the conduct of labour cases have caused the disappearance of this variety of pelvic suppuration, as well as of the old form of pelvic cellulitis with inguinal abscess. Pyosalpinx, unhappily, still occurs, but it is slower in formation, is usually well shut in by adhesions, and the diagnosis is made so much earlier that treatment can prevent grave complications.

The first case selected is an example of tubal gestation, ending in tubal abortion into the peritoneal cavity without rupture of the sac.

CASE I.—*Tubal abortion without rupture of sac.*

The patient is a married woman, aged 37 years; no child for six years. After seven weeks' amenorrhœa she had some pain in the abdomen and began to lose blood from the vagina. She continued her work for another week, but last Wednesday (May 19th) while at work she was seized with violent abdominal pains and had to go home. On the way home she fainted. A doctor found her seriously ill, and she was sent to the hospital with a diagnosis of ruptured tubal gestation and severe internal hæmorrhage. On admission the extremities were cold, lips blanched, pulse 120. Some dulness in the loins could be detected, suggestive of free blood in the peritoneal cavity. Vaginal examination revealed the characteristic brownish-red discharge resembling a menstrual discharge, but

quite unlike the bright red hæmorrhage of uterine abortion. A boggy mass filled up Douglas's pouch, and was more resistent on the left side than the right. The operation confirmed the diagnosis. There was an abundance of free blood in the peritoneal cavity. On the left side of the pelvis there was a rounded mass the size of a walnut which was lying just outside the dilated abdominal ostium of the left tube, and surrounded with recent blood-clot. It was a tubal mole, and was very lightly attached to the tube, the ampulla of which was not ruptured and had evidently contracted down after the expulsion of the mole into the peritoneal cavity. This expulsion probably occurred some twenty-four hours before operation, so there was plenty of time for the ampulla and ostium of the Fallopian tube to have contracted down. There were no pelvic adhesions, and after removing the left uterine appendages and sponging away much of the blood, the abdomen was closed without drainage. A satisfactory recovery ensued.

In this case the diagnosis was easy, the symptoms being clear and positive; but not unfrequently the diagnosis of tubal mole is difficult, especially when the symptoms of hæmorrhage are not severe. It may then be confused with salpingitis. For it is a curious fact that a patient with acute salpingitis may miss a period, and so raise the suspicion of pregnancy. With abdominal pain and a swelling behind the uterus, this suspicion is strengthened. Not many weeks ago an abdominal exploration was done for supposed tubal gestation, but it proved to be salpingitis. The patient had missed one period and had suffered from severe abdominal pain; while on vaginal examination there was a tender swelling in the pelvis of an indefinite nature. As a rule, salpingitis is a bilateral disease, and though the pelvic swelling may be chiefly on one side, yet there is nearly always evidence of thickening on the opposite side. This is an important point of distinction from tubal gestation.

CASE II.—*Inflamed ovarian cyst after labour.*

A woman, aged 27, a fortnight after a full-term labour, began to suffer from pyrexia and abdominal pain. She attended a dispensary, and was found to have a considerable enlargement of the abdomen with signs of fluid; there was also much abdominal tenderness and moderate pyrexia. With the recent history of a confinement, a diagnosis of serous perimetritis was made, as the fluid was in the lower part of the abdomen and the patient did not seem ill enough to be suffering from purulent peritonitis. The case was watched for a time, but the abdomen continued to enlarge, so the patient was admitted to the ward.

At the time of admission it was now five weeks since the confinement, and the abdomen was enlarged to the size of a seven months' gestation with a distinct thrill in all directions. The mere size of the abdomen rendered the diagnosis of puerperal serous perimetritis very improbable. In two or three instances of this condition which have come under my notice, the collection of fluid has been entirely limited to the hypogastric region, and has been well shut in by adherent bowel above and at the sides.

In the case we are considering the physical signs were those of a large unilocular cystic swelling, with resonance in the loins like an ovarian. The temperature had fallen to 101°, and after a day or two in bed it subsided still further. A diagnosis of inflamed ovarian cyst, probably due to twisted pedicle, was then made; but one other condition was discussed—viz., tuberculous peritonitis with ascites. I have seen two cases of tuberculous peritonitis which developed very rapidly after delivery, and led to the formation of a moderate amount of ascites. They were, however, attended with much pyrexia, sweating, emaciation, and other evidences of tubercle. Abdominal section revealed an ovarian cyst, but its pedicle was not twisted, and there were no adhesions around it, and no free fluid in the peritoneal cavity. The inner surface of the cyst, however, was acutely injected and covered with flakes of lymph, like an inflammatory exudation. Microscopical examination showed distinct inflammatory changes in the cyst wall, but they had not involved the serous covering. The Fallopian tubes were healthy. Probably the cyst was bruised during delivery, and then infection occurred from the blood. The patient made a good recovery.

Our next case is an example of acute abdominal symptoms associated with a fibroid of the uterus. Fibroids, as a rule, are free from pain and acute inflammation. Hence, when such symptoms occur, it is important to consider, firstly, whether the tumour is really a fibroid, and, secondly, what complication exists to explain these acute symptoms. The most important lesions to remember are degenerative changes in the tumour itself, and inflammatory conditions of the uterine appendages.

CASE III.—*Necrobiosis of a uterine fibroid with acute toxæmia. Hysterectomy. Recovery.*

A single woman, aged 40, had suffered from increasing menorrhagia for the last two years. On September 9th, 1906, a period began, and was profuse. On the 14th she sent for her doctor, as she felt so ill. He found the temperature 103°, pulse 120, some sweating, but no rigors; patient looked septic. There was an abdominal tumour rising from the pelvis to the level of the umbilicus, which was very tender and could not be properly examined. A bright red vaginal discharge persisted, and it was somewhat offensive. Veins of leg normal. On the 16th, temperature from 101–103, pulse 114. Sweating more profuse, but no rigors. Tenderness very marked over the tumour. On the 18th, I saw the patient. She was feeling better, but very weak, and had lost weight. Temperature 101·4, pulse 100. She was still losing, and occasionally passed foul clots. The abdomen was less tender, and a bimanual examination showed a pyriform enlargement of the body of the uterus, evidently due to a fibroid in its wall. A diagnosis of necrobiosis with toxæmia was made, and an operation was advised as soon as the acute symptoms had subsided. This was carried out on October 1st. The pulse rate was then normal, and the temperature did not exceed 99°. Abdominal section revealed a tumour of the uterus the size of a five months' gestation. There was a little excess of peritoneal fluid, but no general peritonitis and no adhesions. The veins over the surface of the tumour were much dilated. Supravaginal hysterectomy was carried out in the usual way, and the uterine appendages were not removed.

The tumour was embedded in the posterior wall of the uterus, and a vertical section showed that about two-thirds of the tumour had undergone necrobiosis or red degeneration. At the periphery of the red area there was a zone of yellowish tissue, the colour of which suggested staining with altered blood-pigment. In the centre of the tumour there were several cystic spaces containing blood-stained fluid.

The patient made a good recovery from the operation. The pulse remained rapid for the first seven days, but the temperature never exceeded 100°.

The explanation of the red degeneration of uterine fibroids (or necrobiosis, as it is called) has not yet been discovered. It has a close association with pregnancy in a large proportion of the cases, and this would seem to imply that the degeneration was due to interference with the blood-supply of the tumour by the pregnancy. On section, the tumour has a peculiar and characteristic brownish-red colour, and many of the vessels are seen to be thrombosed. Histologically, the tissues around the vessels are not inflamed, but have become hyaline and denucleated. Here and there remnants of muscle-fibres may be detected. Sometimes masses of fat-globules can be demonstrated with osmic acid, which are derivatives of the muscle-fibres. The condition is doubtless allied to the fatty degeneration and peptonization of muscle which take place in the uterus during involution after delivery. The peculiar colour of the degenerated area is said not to be due to hæmoglobin or any of its derivatives, as various chemical tests for iron have proved negative. Clinically, there is often marked tenderness over the affected tumour, and the condition may be associated with toxic symptoms as in the case just related. This probably means that the necrobiotic tissues have become secondarily infected with putrefactive organisms.

Papers by Guy's Men.

R. W. Allen, M.D. Lond.: Six Cases of Vaccine Treatment of Somewhat Unusual Interest.—*The Lancet*, 11th September, 1909.

Herbert French, M.A., M.D. Oxon., F.R.C.P. Lond.: A Note on Very High Specific Gravity of the Urine in Healthy Women.—*British Medical Journal*, 11th September, 1909.

Kenneth W. Goadby, L.R.C.P. Lond., M.R.C.S., L.D.S.: The Present State of the Knowledge of the Prophylaxis of Dental Caries.—*The Lancet*, 11th September, 1909.

Reginald Hayes, L.R.C.P. Eng., M.R.C.S.: The Intensive Treatment of Syphilis by Aachen Methods.—*British Medical Journal*, 11th September, 1909.

John D. Malcolm, F.R.C.S.: The Nature and Treatment of Surgical Shock.—*The Clinical Journal*, 1st September, 1909.

G. Bellingham Smith, M.B., F.R.C.S. Eng., and J. W. H. Eyre, M.D., M.S., F.R.S.: A Clinical Lecture on Septicæmia and its Modern Treatment.—*The Clinical Journal*, 8th September, 1909.

Ralph Thompson, Ch.M., F.R.C.S. Eng.: The Etiology of that Form of Dislocation of the Hip-joint which is Generally Regarded as Congenital.—*The Lancet*, 11th September, 1909.

A. H. Tubby, M.S. Lond., F.R.C.S. Eng.: Experiences in the Treatment of Distal Paralyses by Nerve Anastomosis.—*The Lancet*, 4th September, 1909.

Lectures* for Sessions 1909—1910.

WINTER SESSION. OCTOBER—MARCH.

†	LECTURERS.		DAYS.					
Anatomy (1st & 2nd)	Mr. Steward and Mr. Fagge	9	—	Tu	W	Th	—	—
Microscopical Pathology (3rd) ...	Dr. Boycott, Dr. Eyre, Mr. Goodhart, and	2	—	—	W	Th(10)	—	—
Pathological Classes (3rd & 4th)	Dr. Fawcett and Mr. Rowlands ...	—	—		W(11.30)	Th(9.15)	Sat(11)	
Bacteriology (Jan. to Mar.) (4th)	Dr. Eyre and	4	—	Tu	—	—	—	—
Practical Obstetrics (3rd & 4th)	Mr. Davies-Colley (Oct. and Jan.) ...	11.30	—	—	—	Th	—	—
Chemical Physiology (Jan.) (2nd)	Dr. Pembrey, Mr. Ryffel & Mr. Kennaway	11	—	—	—	—	Fri	Sat
Chemistry (1st and pre. sci.) ...	Dr. Wade	12.15	—	Tu	—	Th	—	—
Practical Chemistry	Dr. Wade, Mr. Ball and Mr. Merriman	10-12	—	Tu	—	Th	—	—
AdvancedPracticalPhysiology(3rd)	Dr. Pembrey, Mr. Ryffel & Mr. Kennaway	11	M	—	W	—	—	—
Practical Medicine (3rd) ...	Dr. Cameron and Mr. Rippmann ...	—						
Experimental Physics (pre. sci.)	Dr. Fison	12	M	Tu (3)	—	—	—	—
Chemical Physics (1st)	Dr. Fison and Mr. Merriman	2	M	Tu	—	—	—	—
Practical Surgery (3rd)	Mr. Bankart and Mr. Layton	12.30	—	Tu	—	—	Fri	—
Physiology (2nd)	Dr. Pembrey (Oct.-Dec.)	10	M	—	W	—	—	Sat
Clinical Medicine (3rd & 4th) ...	The Physicians	4	—	—	—	Th	—	—
Surgery (3rd)	Mr. Symonds, Mr. Lane, Mr. Dunn and Sir Alfred Fripp.	9.30	M	—	—	—	Fri	—
Clinical Surgery (3rd & 4th) ...	The Surgeons	1.30	—	—	W	—	—	—
Elementary Biology (1st) ...	Mr. Assheton, Mr. Youngman and Mr. Hughes.	10.45	—	—	W	Th(2)	Fri	—
Morbid Anatomy (3rd & 4th) ...	Dr. Fawcett, Dr. French and Dr. Hertz	2	M	Tu	W	Th	Fri	Sat(12)
Medicine (3rd)	Dr. Hale White, Dr. Pitt, Sir C. Perry, and Dr. Shaw.	4	—	—	W (3)	—	Fri	—
Ophthalmic Surgery (Jan.) (4th)	Mr. Eason	4	—	—	W	—	—	—
Public Health (Jan.) (4th) ...	Dr. King Brown	4	M	—	—	—	Fri	—
Anæsthetics	Mr. Rowell (Dec.)	—						
Dental Surgery and Pathology...	Mr. Wynne Rouw	4	—	—	—	Th	—	—
Metallurgy	Dr. Wade	4	M	—	—	—	—	—
Practical Dental Metallurgy ...	Mr. Hopson (Jan.)	2.30	—	Tu	—	—	—	—
Dental Anatomy & Physiology...	Mr. Maggs	4.30	—	—	W	—	—	—
Dental Mechanics	Mr. Lewin Payne (Oct.–Dec.)	4	—	Tu	—	—	—	—
Practical Dental Mechanics ...	Mr. Pillin (Jan.)	2.30	—	—	—	—	Fri	—
Pathology	Dr. Boycott	—	—	—	—	Fri (12.30)	Sat (9.30)	

SUMMER SESSION. MAY—JULY.

†	LECTURERS.		DAYS.					
Medical Jurisprudence (3rd & 4th)	Dr. H. F. French and Mr. Ryffel ...	10	—	—	W	—	Fri	—
Midwifery (3rd)	Mr. Targett and Mr. Bellingham Smith	9	—	Tu	W	Th	Fri	—
Diseases of Women	Mr. Targett and Mr. Bellingham Smith	9	—	—	—	—	Fri	—
Mental Diseases (3rd)	Dr. Craig	9.30	M	—	—	—	—	—
Bacteriology (April to June) (4th)	Dr. Eyre and	4	—	—	W	Th	—	—
Practical Obstetrics (3rd) ...	Mr. Davies-Colley	11.30	—	—	—	Th	—	—
Biology and Botany (pre. sci.) ...	Mr. Assheton, Mr. Youngman and Mr. Hughes.	2	—	—	—	Th	—	—
Physiology (2nd)	Dr. Pembrey	9.30	M	—	W	—	—	Sat
Histology (1st)	Dr. Pembrey, Mr. Ryffel & Mr. Kennaway	10.30	M	—	W	—	—	Sat
Practical Surgery (3rd)	Mr. Bankart and Mr. Layton	12.30	—	Tu	—	—	Fri	—
Practical Medicine (3rd) ...	Dr. Cameron and Mr. Rippmann ...	12	—	—	—	Th	—	—
Experimental Physics (pre. sci.)	Dr. Fison and Mr. Merriman	12	M	Tu (2)	—	—	—	—
Clinical Medicine (3rd & 4th) ...	The Assistant Physicians	1.30	—	—	W	—	—	—
Clinical Surgery (3rd & 4th) ...	The Assistant Surgeons	1.15	—	—	—	—	Fri	—
Morbid Anatomy (3rd & 4th) ...	Dr. Fawcett, Dr. French and Dr. Hertz	2	M	Tu	W	Th	Fri	Sat(12)
Materia Medica (2nd)	Dr. Beddard	4	M	Tu	—	—	Fri	—
Anæsthetics	Mr. Rowell (June)	—						
Operative Dental Surgery ...	Mr. Parfitt	2	—	Tu	—	—	—	—
Chemistry	Dr. Wade	9.30	—	Tu	—	Th	—	—
Practical Chemistry	Dr. Wade, Mr. Ball and Mr. Merriman	10.30	—	Tu	—	Th	—	—
Exp. Pathology (Gordon Lectures)		12.30	—	—	—	—	Fri	—

* No effort has been made to include the many demonstrations or practical work.

† The numbers in this column refer to the years in which this course should be attended.

The Sciences.

Anatomy and the Dissecting Room.

How to begin Work.

A great many freshmen have already passed their preliminary examinations in Chemistry and Biology before they come up to Guy's. They are then ready to commence the study of two most important subjects—Anatomy and Physiology.

For the help of these new men, it is proposed to give such instructions as they may need in beginning the work of their first winter session at Guy's. It will be assumed that they have already decided what the general course of their study is to be; that is, briefly, whether they are going in for the Preliminary Scientific Examination of the London University or not. Information on these matters is readily obtained at the Medical School Office, and any student who is not clear in his mind as to the examination he has to prepare for, should read carefully pages 95–98 in the "Green Book."

Under the Five Years' Regulations of the Conjoint Board, the first object of the student (entering, for instance, in October, 1909) is to pass the examinations in Chemistry and Biology, as failure to complete these by the following March (*i.e.*, 1910) must postpone the date at which the Second Conjoint should be passed (*i.e.*, April, 1911), so that students are advised, unless they have passed either one or both of the above subjects before entering the hospital, or are unusually well versed in the subjects for these examinations, to postpone dissecting until one or both (Chemistry and Biology) have been completed.

What follows refers, therefore, only to those who intend to undertake their dissections at once.

Friday, October 1st.—There is no actual work done on this day, but each student who is ready to dissect (*vide supra*) should pay his fee for anatomical material in the Medical School Office, and then interview the Senior Demonstrator in the dissecting-room and see that his name is put down for a "part." He should then study the Red Book—which contains the rules of the dissecting-room—and purchase the necessary instruments and the other paraphernalia therein indicated. Any spare time is well spent in learning where the museums, class-rooms, and theatres are situated. The ground plan at the front of the "Green Book" will show them at a glance, and serve as a very efficient guide.

Monday, October 4th.—At 9 o'clock in the morning the start is made, and we get our first introduction to the duties of hospital life at a lecture by Mr. Steward in the anatomical theatre, and at 12 o'clock a demonstration is given to all first year's men by the Senior Demonstrator, Mr. Thompson, in the small theatre attached to the dissecting-room, when the way to work in the dissecting-room is fully explained.

To find a "Part."

Look down the list of names on white cards which are suspended upon the wall of the dissecting-room opposite each subject or body. Be careful to take the proper side (right or left) which is allotted to you. If you fail to find your name on these cards, make yourself known and report the fact to one of the demonstrators present. The next thing is to obtain a bandage and cloth from the attendant (Hancock), who will be found in a room outside the dissecting-room. With these the "part" must be covered up at once to prevent the skin from drying. If the "part" is a limb, bandage it firmly from the hand or foot upwards as far as the bandage will go, and cover the remainder with a cloth, *but be careful to leave the metal ticket exposed to view. This ticket must on no account be removed.*

The Requisites for Dissection.

The following articles are essential, and must be purchased at once:—

a. Case of instruments. This should contain two or three good knives (preferably all-metal), two pairs of large forceps with a weak spring, one pair of strong pointed scissors, hooks, needle and blowpipe, and can be obtained from Hancock, the dissecting-room attendant, or at Messrs. Down Bros., of St. Thomas's Street; Messrs. Arnold & Sons, West Smithfield; Messrs. Maw, Son & Sons, Aldersgate Street; or Messrs. Allen & Hanbury, Plough Court, Lombard Street. Price about 15s. to 20s. Small or delicate instruments should, as a rule, not be procured.

b. Books. These are obtainable at Grattan's in the Borough High Street, next door to the post office. It is advisable to obtain *Cunningham's Practical Anatomy* (2 vols. 10s. 6d. each) for use in the dissecting-room, which shows how to proceed and what is met with in the course of dissection; *and* one at least of the standard text-books, viz., Gray, Cunningham, Morris, or Quain's Text Book. The inquirer will hear their merits compared at the introductory lecture and demonstration; if still in doubt he should consult personally one of the demonstrators, and take with him any old text-book he may possess for inspection and advice as to its use.

c. An apron and sleeves for the sake of protection and cleanliness. These are sold by Hancock. Any old coat may be worn under them. Instruments, books, apron and coat must be safely put away in a locker provided for the purpose; the key is obtained by making a deposit of 5s. at the Medical School Office. During the day hats and coats are kept at a special cloak-room under the Wills Library.

d. A disarticulated skull and a half skeleton. (*See below.*)

With regard to all the necessary articles mentioned above in a, b *and* d, *it is well to point out to new students that many men who have just completed their anatomical studies may wish to dispose of some of the above articles second-hand, and new students may obtain information about, and details of such things, to be bought from the Librarian or Hancock, with whom such things are usually*

lodged. Before completing any such purchase it is always best to make sure that the books are of the last edition published, and that the instruments are reliable, points on which any of the demonstrators will gladly give advice.

How to Dissect.

The instructions given on this point in the text-books are by no means clear to anyone who is working in the dissecting room for the first time. He finds quite a new language in use, and no explanation of it in the margin. Thus, he is told to "make an incision," instead of "cut"; to "reflect the integument," for "turn back the skin"; "anterior and posterior," instead of "in front and behind." Not a little of the difficulty and dulness attaching to anatomical description depends on the need of a mental translation of the language in which they are written.

To deal fully with the skilful act of dissection is unnecessary here, and we will merely give such short directions as are needful for the work of the first two or three days. The objects of dissection are—firstly, to educate the sense of touch, and to teach the hand and the eye to work together in delicate manipulation; and secondly, to enable the student to see and handle the different structures that he reads about in his books. The following advice may be given:—

1. Take your book (Cunningham) by which you intend to dissect and read over the pages giving directions for the skin incisions to be made in that particular part you are about to dissect.

2. Cut through the skin along the lines given in the books.

3. Turn back *the skin only*, leaving the fat upon the body. This is done by holding the knife obliquely with its edge towards the skin.

4. Take away the fat carefully without damaging the dense white layer which covers the muscles.

5. Clean the surface of the muscle. To do this make the muscle taut by moving the limb, or pulling on it with hooks; then with the point of the knife clear away everything covering the muscle by working *with* its grain or fibre, *not* across the fibres.

6. Before taking any fresh step in your own dissection get a notion of the arrangement of the parts you are going to expose, either from another man's part, or from the "pickle-room," or wax model museum preparations. *Most important of all, never remove any structure until you have obtained a good mental picture of it, and have also read in your book the description of it, and have satisfied yourself you know it.*

7. Work very slowly at first. To turn back the skin carefully is quite enough to occupy the first day's work-time.

8. Cover the "part" up with a cloth before leaving it for the night.

The student should, on the first day, ask one of the Demonstrators for a copy of the Red Book, which contains the rules of the dissecting-room, and also much useful information as to classes which must be attended, and particulars of the School examinations.

The first year's man will find that he has first of all to dissect an arm or a leg. Having found his part, he should next examine the notice board, where he will find particulars of the bone classes which are held twice a week by Mr. Mollison and Mr. Hughes. He must attend the classes on the part he is dissecting, and at these he will find the anatomy of the bones and muscles he is dissecting fully explained.

Osteology.

A thorough knowledge of the bones is the basis of anatomy, and hence the subject cannot be too carefully studied. The student will find that to know his bones well is of importance, not only in the School Elementary Anatomy Examination, but also for the Second Conjoint, Intermediate M.B., Primary F.R.C.S., and even for the Final Examination in Surgery.

Like other branches of anatomy, it must be learned practically—by handling the bone, reading the description of it, and noting the various marks upon it, each one of which has its meaning. In order that the bones may be studied at home as well as at the hospital, it is very important that each student should possess them. Half sets of bones, that is, the skeleton of one side of the body with the spine and head, can be obtained second-hand at a very moderate outlay, and if carefully used they will at the end of the course readily fetch half the original cost, or even more. Some very useful half-sets (second hand) are to be seen at Messrs. Millikin & Lawley's, 165, Strand, W.C., price 30s. If these are disposed of at the end of the Second Conjoint Examination for half the price, it follows that the immense advantage of having the bones always at hand while preparing for the examinations is obtainable at the expense of a few shillings.

In selecting a half-set of osteology it is as well to have some advice, which will be readily given by one of the demonstrators. See that the half-set is complete, and that each bone is of the *same* side. Avoid "the nice white bones," which dealers always charge extra for, and choose the rougher, better marked and dirtier ones. The preparation which makes them white does away with many of the marks and ridges which have to be studied. With regard to the disarticulated skulls, try the separate bones and see whether they fit into each other properly, as it is not uncommon to find skulls offered for sale, the bones of which have come from different subjects, and hence cannot be articulated.

It may be necessary to caution men against neglecting the subject during their first year: they will find the second year's work quite heavy enough as it is, and moreover may suffer the mortification of being spun in the school elementary anatomy examination at the end of the first winter session, if they neglect the bones in their first term's work.

Dental Students.

A dental student, on entry, must pay the fee (10s. 6d.) for material at the Medical School Office, between 10 a.m. and 1 p.m., so that a part may be allotted to him at the earliest opportunity. He should obtain a copy of the

rules of the dissecting-room, and study those paragraphs which specially concern him. He should be careful not to miss the demonstration given by Mr. Thompson to first year's students, on Monday, October 4th, at 12 noon.

It is very important for first year's dental students to commence their anatomical studies without delay. During their first six months they should dissect the upper and lower extremities, and attend the bone classes held by Mr. Mollison and Mr. Hughes throughout the winter and summer sessions. They should pass the elementary anatomy examination at the end of their first six months if possible, or failing this, not later than nine months from their entry at the hospital. The subjects of this examination are :—

1. All the bones and ligaments.
2. The muscles and fasciæ of the upper and lower extremities.

The importance of having a thorough knowledge of the bones of the head and spine, with the muscles attached, cannot be over-estimated. Lack of such knowledge has caused the downfall of many at the final L.D.S. examination.

Having passed the elementary anatomy examination, dental students are allotted a head and neck, in which they are expected to dissect, besides the muscles and ligaments, the vessels, nerves, and other soft parts, and also to acquaint themselves with the anatomy of all the special regions of this part, *e.g.*, the orbit, mouth, pharynx, etc.

Mr. Mollison holds special classes for these students, throughout the winter session, in the dissecting-room theatre, once a week, and a test examination is held on the work at the completion of the dissection and the course of demonstrations. It will be agreed that the second dissection is even more important than the first, and it is well to realise that, as the work done by each man is noted and marked every week by Mr. Mollison, and men are only signed up for the necessary session's work when these marks are satisfactory, careful and conscientious dissection, punctual attendance at demonstrations, and industrious reading up of all the work, must be begun as soon as the dental student enters the dissecting-room, and continued until the subject is mastered.

It is very essential that the study of anatomy, physiology, and surgery should be prosecuted energetically from the outset, thus obviating the necessity for "cramming" these subjects when preparing for the Final L.D.S. examination. Careful and patient dissection is the easiest way to learn Anatomy. An attempt to "cram" it from books is certain to result in disaster.

PHYSIOLOGY.

Physiology, which treats of the working of the healthy body, and forms, therefore, the institutes of medicine and the necessary foundation of any rational mode of treatment of the body in disease, differs from its sister subject, Anatomy, in that it requires much greater intellectual efforts for its acquisition, and a more thorough preliminary training for the comprehension of its doctrines. Physiology consists chiefly in the application of the natural laws elicited by the researches of physicists, chemists and biologists to the explanation and description of the phenomena occurring in the living body, so that an acquaintance with the chief laws of physics, chemistry and biology forms the necessary basis for the study of physiology. The study of the nervous system, moreover, requires some knowledge of psychology. The difficulty and importance of the subject would seem to indicate, in the clearest possible manner, the necessity of pursuing its study throughout the short space of two years which are devoted to the subjects that are preliminary to the work in the wards. On this account, the student beginning his medical studies in October must give all his energies to getting up his biology in order to pass in it at the earliest possible opportunity, and he may profitably combine with the biology lectures and classes the reading of some physiology, such as Huxley's *Elementary Lessons in Physiology*, or the smaller works on the same subject by B. Moore and by Foster and Shore. He is advised to attend the physiology lectures at this time, but cannot be "signed up" for them.

By the ordinary student the practical study of the subject included under the heading "Physiology" is begun in the first summer session. During the whole of this session he must attend the classes in Practical Histology. These are held in the students' histological class-room three times a week; each class lasts two hours. Students attending this course must provide themselves with a compound microscope, certain mounting materials (a list of which can be obtained at the office), and with Schäfer's *Essentials of Histology*, which should be carefully studied in the intervals between the classes.

At the end of the summer session an examination is held in histology. All students who have attended this class must enter for the examination. Only those who pass the examination will be allowed to attend the tutorial classes in physiology held during the second winter session in preparation for the examinations of the Conjoint Board. Those who fail at this examination will be examined in the following session.

During the first summer session and the first half of the second winter session, the student should attend regularly the lectures on physiology held three times a week, on Mondays, Wednesdays, and Saturdays. During the same time those who have passed the histology examination at the end of the previous session should attend the tutorial classes held by one of the demonstrators throughout the session. At the same time he should read up the subjects in some text-book such as Starling's *Elements of Human Physiology*, Halliburton's *Handbook of Physiology*, Stewart's *Manual of Physiology*, or Howell's *Text-book of Physiology*.

During the winter session, *i.e.*, from January to March, students must attend the classes in practical physiology, which are held on Friday and Saturday mornings from 11 to 1. While attending these classes, they are recommended to read up the subject in *Practical Physiology* (published by Arnold) which is used in the practical work.

Students who have been diligent in following this course of studies will be ready to enter for the second Conjoint examination at the end of this session. Shortly before this examination, a test examination is held by the demonstrators in order to judge of the fitness of the candidates. Those who fail to pass the Second Conjoint at this time must attend the revision classes held by the demonstrators during the two or three months preceding the July and January examinations of the Conjoint Board.

Certain modifications in this course of studies is necessary for those who are going up for the M.B. of London or other Universities. Having passed their preliminary scientific before entering, they are free from the study of biology during their first winter session. They should therefore attend the physiological lectures and practical classes during this session. In their first summer they attend the histology classes, and read Schäfer's *Essentials of Histology*. During their second winter, they should attend the class in advanced practical physiology, which is held twice a week, each lesson occupying between two and three hours. This class should also be attended by candidates for the first F.R.C.S. examination, although in their case attendance may often be profitably postponed until the third winter session. The reading for this examination is similar to that required for the Second M.B. examination of London.

Those who are desirous of obtaining distinction at the Second M.B. examination should supplement the course of reading already indicated with original papers in the *Journal of Physiology*, with parts of Schäfer's *Text-book of Physiology*, *Recent Advances in Physiology and Biochemistry*, edited by L. Hill, *Further Advances in Physiology*, edited by L. Hill, and Leathes' *Problems in Animal Metabolism*. University students should also attend the advanced lectures given on Physiology for the London University.

Revision classes are held by the demonstrators during the two months preceding the first F.R.C.S. and M.B. examinations for the special preparation of candidates for these examinations.

BIOLOGY.

The course of instruction for the Preliminary Scientific of the London University M.B. examination consists of lectures which are given on Wednesday and Friday at 10.30 a.m., and on Thursday at 2 p.m., and of demonstrations and practical work on Wednesday and Friday mornings 11.30 to 1.30, and on Wednesday afternoons 2 to 4 p.m. The course of lectures naturally includes all the types required for the Preliminary Scientific (M.B. London) Examination, and a printed syllabus of these lectures is given out at the beginning of the session. The Biological Laboratory is open at all times between 8.30 a.m. and 5 p.m., so that students may revise their work and complete any part they may have been unable to finish in the regular hours. Those students who are preparing for the Biology examination of the Conjoint Board of the Royal College of Surgeons and Royal College of Physicians will attend certain of the above-mentioned lectures, which are specially noted in the above-mentioned syllabus. The practical work for Conjoint Board students is nominally carried out on Wednesday and Friday mornings, but it is always open for these students to attend on Wednesday afternoons if occasion demands. The practical class is held immediately after lecture in the Biological Laboratory. The requisite instruments, books, etc., for this course should not be purchased until after consultation with the lecturer, who will advise as to these in the first lecture. It is especially recommended that the purchase of a microscope should be postponed until after consultation with the lecturer, because a microscope has to serve throughout a student's career, and indeed afterwards as well, and it is important that an efficient instrument should be acquired in the first instance. T. G. S.

CHEMISTRY AND PHYSICS.

The student is sometimes tempted to regard Chemistry and Physics as mere preliminary studies, of little importance when once the respective examinations have been passed; and, unfortunately, he will find no lack of encouragement in this idea from those who, from lack of ability, or more often from lack of industry, have found these subjects irksome. But when it is reflected that vital activity is dependent on the incessant balancing of chemical changes of the most complex description, it cannot fail to be recognised how futile it is to attempt to understand the working of the human body, the greatest of living organisms, without a firm grasp of primary chemical and physical processes. Scarcely a step, indeed, can be taken in Physiology, Pharmacology, or Pathology without reference to chemical facts and methods; and, in addition to these practical applications, the exact habits of work and thought acquired in the chemical and physical laboratories are simply invaluable later in enabling the student to find his way through the morasses of ill-digested observation with which he will often be confronted.

The above principles are now for the first time fully recognised in the new curriculum which has just been issued by the University of London, and should be carefully studied by every London student. This curriculum has been framed with the utmost care, with the object of leading students to their life work by the shortest and most direct route: first, through the pure sciences, carefully adapted to their future applications; next, through the applied sciences, and finally to clinical method. The matriculated student will, in his first year, study Inorganic Chemistry, Physics, and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the lectures and revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic and Applied Chemistry, together with Anatomy and Physiology, and at the end of this period, provided, as before, that he has

worked steadily from the commencement, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology, and Pharmacology are then taken as the Second Part of this Examination, at the close of the third year, prior to commencing clinical work in the wards.

From the Conjoint and the Dental student only six months' work is required. but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

But, whatever the ultimate aim of the student, his success at the examinations will depend very largely on the care and thoroughness with which he has done his laboratory work. Neither books nor lectures are in themselves enough; their use is to direct the student and help him to arrange and digest his knowledge. The more first-hand knowledge he acquires for himself in the laboratory, the more benefit he will acquire from reading, lectures, and revision classes. The last, indeed, as their name implies, presuppose that the student has acquired a working knowledge of his subject, and are intended more to assist in the arrangement of ideas and clearing up of difficulties than in the acquisition of fresh knowledge. Guy's men have no excuse for neglecting laboratory work. The Chemical Laboratory, for example, is open every day from 9.30 a.m. to 5 p.m., and students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought, and rarely, indeed, be tedious. It is reading without practical experience that is so destructive of thought, and such reading is very properly stigmatised as "cram." "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

For the coming term, Chemistry Lectures start on Tuesday, October 5th, at 12.15 p.m. (Chemical Theatre); but before this students should go to the Chemical Laboratory (10 a.m.), to receive their lockers and commence practical work. Practical Organic and Applied Chemistry starts on Monday, October 4th, and the Lectures on Friday, October 1st, at 10 a.m. Physics Lectures commence on Monday, October 4th, at 12. (Physical Theatre).

PRACTICAL PHARMACY, MATERIA MEDICA, AND DISPENSING.

One of the many important things all medical students must know is how to write a prescription; it may even be necessary for the majority, when qualified, to know how to dispense the same, so that the student will do well not to neglect acquiring as much knowledge of this subject as he can.

The principles underlying the art of prescribing are comparatively few and are quite easy to grasp, especially to the man who remembers his chemistry, and has, in addition, some general idea of the chief physical properties of the substances commonly used in medicine. In addition, a considerable amount of purely memory work and application is required in studying the doses and preparations of the drugs in use.

The student is taught practically the methods of prescribing, he practises writing prescriptions for combinations of drugs with due regard to incompatibility, and he is taught how to dispense the prescriptions he has himself written.

The course covers the syllabus of the Practical Pharmacy of the Conjoint, the Intermediate M.B. Lond., and the Third M.B. Cantab.

During the year there may be three courses of three months each, should a sufficient number of students require instruction, which is given in the practical pharmacy class at the Dispensary by Mr. Finnemore, B.Sc. Lond., F.I.C., the Hospital Pharmacist.

THE MEDICAL WARDS.

Work in the medical wards is taken in two sections of three months each, with an interval of three months, during which time the post of assistant surgeon's dresser is held, together with that of assistant physician's clerk.

A few words of advice to the oncoming medical ward clerk may not be out of place. In the first place we would urge him most strongly *not* to take his "manual of medicine" and read it through from cover to cover. He should, however, endeavour to become thoroughly acquainted with those diseases which he finds examples of in the beds which have been allotted to him.

Secondly, he must become familiar with the various physical signs indicative of disease in the various organs of the body, comparing his own cases with others which he finds in the wards. Too often the keen and energetic clerk is so busily engaged in noting and learning signs of disease that he neglects to observe and remember appearances and landmarks which may be, or are, compatible with perfect health. We would advise him, therefore, to listen to the "normal" heart as well as to the "failing" heart, to become accustomed to the normal vesicular murmur before he begins to grapple with the mysteries of "bronchial breathing."

Thirdly, we would strongly advise him to make a friend of his particular house-physician, from whom he will obtain many "tips" and "wrinkles" which will prove of immense value to him for all time, smoothing over rough places in the stony ways of medicine, and clearing up abstruse questions which have arisen as a result of his reading.

From his house-physician, also, the medical ward clerk will learn when a "tapping" will take place, when an urgent venesection will be required, or of the necessity for the surgeon's knife. In fact, if he be only willing and energetic, he will find the house-physician a complete "medicine-book" as well as a most kindly friend.

The arrangement for work in the medical wards is as follows:—The registrars are two in number; one is attached to the beds of Dr. Hale White and Dr. Shaw,

the other to the beds of Dr. Pitt and Sir Cooper Perry. Each registrar makes a formal round four times in the week, and on the other two mornings he may be found in the clinical laboratory, or assisting at the more lengthy examinations in the wards. When the registrar visits any bed, the medical ward clerk responsible for the report of that bed MUST be present with rough notes of the history of the case, and he should, if possible, be able to describe the physical signs of disease. These rough notes, in the compiling of which the clerk should obtain the help of the clinical assistant, should subsequently be neatly copied into the report sheet, in order that the physician may inspect them upon his visit to the wards in the afternoon. After the visit of the physician, the ward clerk should at once enter the remarks made by the physician, and also the diagnosis, if the latter has been made. Only the physician's diagnosis is to be entered in the report.

The registrars begin their morning round at a quarter-past ten; no lengthy examinations are made after a quarter-past twelve, in order that dinners may be served. The wards, however, are open to the ward clerks until one o'clock, when they are closed for nursing purposes until half-past one. We mention this point because of late there has been some misunderstanding. The boards which are sometimes hung upon the doors of the wards at mid-day, indicate that the wards are closed to visitors.

In compiling his report, the ward clerk should be brief and thorough; he should avoid being "long-winded." He should pay attention to "family history," which may indicate a predisposition to disease, and he should make a careful summary of the previous illnesses from which the patient has suffered, consulting, if necessary, the records which are kept in the medical registrar's room.

Whenever possible, he should attend the post-mortem examinations which are held daily, and he should *always* be present at the autopsy of any case the record of which he has been keeping. The abstract of such autopsy is subsequently to be obtained from the post-mortem room and copied into the medical report.

With regard to books, we would recommend him to obtain Taylor's "Practice of Medicine," and "Clinical Methods," Hutchinson and Rainy. Later on, during his second term of office, Osler and Allchin may claim his attention.

PATHOLOGY.

As soon as a student has passed his Second Conjoint or Intermediate M.B. examination, he should begin his study of pathology. Without a sound knowledge of this science it will be impossible for him to acquire any useful knowledge of either medicine or surgery. It is only by following out his cases to the bitter end when he is a medical ward-clerk, that he will see the anatomical changes produced by the diseases of which he has been learning the symptoms and the treatment in the wards. He will also begin to understand the snares and pitfalls that beset the path of the physician, and will often come back from the post-mortem room a sadder and a wiser man. He can, therefore, never be too emphatically urged to attend the autopsies on every one of his cases, and to spend as much time as possible in the post-mortem room. Autopsies are conducted every day of the week at 2 p.m. (Saturdays at noon), by Dr. Fawcett, Dr. French and Dr. Hertz, whose custom it is to draw the attention of the student to any changes that may be found. Again, a sound knowledge of surgical pathology will lighten the student's labours during his time in the surgical wards. It may well be said that no man can be a surgeon unless he is a good pathologist. He is expected to know the various forms of new growth and the relative frequency with which they occur, and the rapidity of their course in the different organs of the body. Having arrived at this diagnosis, he can remove the tumour and subject it to a microscopical examination, when his joy will be great at the accuracy of his diagnosis.

In order, then, to gain a useful knowledge of the naked-eye appearance of pathological conditions, he should spend as much time as possible in the post-mortem room, and also examine the excellent collection which is kept in the museum. Here the result of the autopsies and operations of many years are presented to him, but he should bear in mind that going round the museum cannot in any way replace the study of the fresh organs in the post-mortem room. He should also attend Dr. Fawcett's class on medical pathology and Mr. Rowlands' surgical pathology, which is held three times a week during the winter session. These classes consist of demonstrations on the naked-eye appearances of diseased organs, and are illustrated by specimens from the museum and the post-mortem room. They are held in the morning, and only last half an hour, so as to clash as little as possible with clinical work.

Equally important is a knowledge of microscopical pathology, where he will learn the essential nature of pathological changes. A class on this subject is given by Dr. Boycott and Dr. Eyre on Wednesday afternoons and Thursday mornings throughout the year. Bacteriology is taken in October to December and April to June, and morbid histology from January to March and July to September. The class must be attended during surgical ward clerking or the first three months of medical ward clerking, in order that he may acquire a good groundwork which he will be able to enlarge upon as he goes along.

In order to learn something of the principles which underlie pathology, the student should attend the lectures on general pathology. In May and October there are also short courses adapted for the requirements of candidates for the first part of the Third M.B. Cantab., and the final M.B. of Oxford and London Universities.

There is no text-book that covers the whole field of pathology. New discoveries are continually being made. Attendance on a course of lectures and demonstrations, in which the newest work is taught the student, will therefore be much more valuable to him than the perusal of any book. Should he wish to supplement his knowledge,

he can do so by reading many of the articles in Allbutt's "System of Medicine," first and foremost among which is Adami's Treatise on Inflammation. He will also gain much help from Hewlett's, Green's and Lazarus Barlow's Manuals. Muir and Ritchie's text-book on Bacteriology should be read by those who are attending Dr. Eyre's course. Strangeway's Practical Morbid Anatomy will be found useful to acquire technique, especially by Cambridge men, as they are allowed to bring it into the practical part of the first part of the Third M.B.

BACTERIOLOGY.

The compulsory course in Bacteriology forms part of that in Microscopical Pathology, is held during the months of October, November, and December, and is repeated in April, May, and June. The course comprises short demonstrations, with especial reference to the life-history of the bacteria pathogenic to man, followed by practical instruction in the rudiments of bacteriology as applied to medical diagnosis. To this end the members of the class study the methods of staining sputum, pus, and exudates to demonstrate bacteria; the methods of collecting morbid products for bacteriological investigation, and the estimation of such antibodies as agglutinins, opsonins, etc., in the body fluids; in fact, the technique pertaining to all the various examinations which can be undertaken in connection with the ward work. In addition, students are instructed in the practical details of media making, culture and staining methods, and they individually examine the more common pathogenic and non-pathogenic bacteria.

Consequently, Bacteriology should be regarded not as a compulsory subject of merely scientific interest, but as one which has an important and ever-present bearing upon diagnosis, and upon treatment. This course should therefore be taken as early as possible during the period of clinical study, if possible, when no ward appointments are being held.

Lectures on the bacteriology of special organs, and the recent development of bacteriological therapeutics (serum and vaccine treatments) and diagnosis, together with the various theories of immunity, etc., upon which these methods are based, are given weekly during January, February, and March.

THE SURGICAL WARDS.

In the surgical wards there is a division of labour, and corresponding to this division, the appointments fall into two classes—clerking and dressing. The student's first introduction to clinical work is as clerk in the surgical wards, and it is not unlikely that he may, on his first entry, be a trifle discouraged. The reasons for this are obvious. Entirely ignorant of surgery and even of the terms in common use, he is at once required to write full accounts of the cases admitted to the wards. He will find, however, that by paying attention to the advice we give him, his difficulties will be found to be anything but insurmountable.

Being the junior appointment in the hospital, there is a tendency in the minds of some, and a little more than a tendency in the minds of others, to belittle the post. That is unjust, and is the result of ignorance of the real functions of the surgical clerk. What the medical clerk is to the medical side, the surgical clerk is to the surgical side. The post is junior in point of time, but does not necessarily carry with it any stigma of inferiority. Their duties are identical: the preparation of the permanent hospital records of the cases admitted to the wards. What difference there is consists in this: the machinery of the medical side is less complicated than that on the surgical; whereas the whole of the work in the medical ward falls on the clerk, in the surgical wards it has been found advisable to specialise and to separate—for the sake of greater proficiency—the duties of clerking and dressing. This separation has thoroughly been justified by the results, the chief difficulty being the dependency of the clerk on the dresser for many details of importance. Dressers should, therefore, remember that from them the hospital expects such assistance as will render the reports as complete as they can be made. On the clerk, however, rests the responsibility, and the excellence of his reports is a sure indication of smooth working and mutual assistance in the firm to which he belongs.

The most important point for a clerk to remember is that in after years cases and not book work will form his mainstay in practice, and that he cannot too soon get the clinical entity and results of treatment into his memory.

The appointment of an overseer to each firm of clerks in the person of a clinical assistant in the surgical wards is of inestimable value, primarily to the clerks, secondarily to the whole firm. The clinical assistant should be the immediate "ear" of all his clerks, to instruct them in their duties in the wards, also relieving the surgical registrar of many details in the filling in omissions of the reports of his firm.

We do not wish to exalt the clerk unduly, but to insist merely that in his work the same care and attention to detail, the same knowledge of human nature, are as necessary as in other appointments. Let him bear in mind that to him is given by the hospital the task of keeping its records. These are bound and kept, and by his work thus perpetually in evidence a man is judged. Bad reports are a lasting disgrace; good reports a lasting honour. The importance of good careful work by the clerks cannot be over-estimated. In the nature of things it cannot be perfect, but it must be as perfect as he can make it. By his first work in the wards he will be judged, and he will find that it is very hard to live down a bad clerkship. At the same time that he bears in mind the difficulties and responsibilities of his post, he should remember that he is a junior, and that any assistance he can lend his seniors should be offered ungrudgingly, and in return for this he will undoubtedly meet with that consolation and help in his work which is so necessary. There is no loss of dignity sustained in carrying screens

to patients, or in the thousand and one small opportunities which present themselves of helping the other workers in the wards.

To the dressers we would submit that the performance of dressing is no part of the clerk's duty, and that it is no kindness to him to request him to undertake what he cannot from his position with good grace refuse, and what nevertheless he is unfitted to do.

The work of the firm, as a whole, should be the interest of each individual member of it. Pride should be taken not only in its splinting and dressing, but also in its reporting. A good house-surgeon and a good dresser will see that the reports are not below the level of those of other firms, for as they represent the work of the firm the individual members should see that they give a fair and accurate idea of that work. The clerk, aided by the clinical assistant, from this point of view is to be regarded as the mouthpiece of the firm to succeeding generations. The firm should see that he represents it fairly. It is essential that either the clerk should live within walking-home distance of the hospital, or else get a room for the take-in week. All really good casualty work is done at night, and the periods for seeing the actual Crofting and treatment of fractures is all too short as it is.

As soon as he is appointed, he should obtain from the Medical School office the "Notes on Surgical Case-taking" issued by it. A few days before taking over the work he will meet the surgical registrar to find out to whom he is appointed, and should then learn from his predecessor what he can about the cases he is to take charge of, so that the work may be continued as nearly as possible without a break. At the present time there is an entire change of clerks every three months, but in the way indicated above, the break in the work may be obviated to some extent. He should learn quickly to take accurate pulse and respiration rates, and test urine, for without any exception the temperature, pulse and respiration rates, and condition of the urine must be included in the notes of every case on admission. The surgical registrar sees every new case with the clerk on the morning after admission, when he expects a history of every case to be ready. This, if vague, is useless. All symptoms should be set down in exact order, with the dates of their appearance. The exactness in detail is of the highest importance, and is a measure of the care with which the clerk has done his work. He should have a note-book, and should put down in it everything about the case that he can obtain from the surgeon, house-surgeon, clinical assistant, and dresser. This should be copied into the report as soon as possible. We would impress upon each clerk the value of seeing everything done by the dressers or house-surgeons—the operations, putting up fractures, especially when done at night in take-in week, and this should apply to manipulations on every case under the surgeon, and not only to the cases which the individual clerk has to report—as much may be learnt in this way which otherwise can only later be gathered with much greater effort.

He should also attend the practical surgery classes of the surgical registrar, who gives four courses a year, each beginning on the appointment of the new surgical ward clerks, and especially designed for their instruction in all matters relating to that appointment, and also the course of practical pathology which is then in progress.

Lists of the duties appertaining to each appointment are supplied to the students, and these are to be carefully followed out. The hospital not only expects this, but insists on it. We have laid stress so far on the appointment of surgical ward clerk, as it is the first post that the student holds, and because he is so often quite unaware of the objects of the appointment.

He will in time become a dresser, and will by that time have learnt the traditions that underlie his office. He should, before accepting office, have acquired most thoroughly the principles of aseptic surgery, and, on no account, ever depart from them subsequently. Let soap and water be his sheet anchor.

The surgical wards are visited every day by the surgeons and assistant surgeons at 1.45. Notice of operations, which usually take place on Mondays, Tuesdays, Thursdays and Fridays, except for emergencies, is posted overnight in the colonnade by the House-Surgeon for the week. The surgeons are assisted at the operations by the dressers, and the particular clerk to the case should remain close by throughout the whole operation.

Although we believe there is no rule which prevents freshmen attending operations and clinical demonstrations, we would point out that such a course of action is useless to them, and is not encouraged by the authorities.

Finally, we should like to repeat that although specialization has provided a clerk responsible for the drawing up of the hospital records, yet as this report is an account of the work performed by the firm as a whole, it touches the honour of every one in it that the report should be an accurate statement of the work done. The firm should be considered the entity, each separate member of which fulfils his own function, each at the same time being dependent on the others for the smooth, even working of the whole.

ANÆSTHETICS.

One of the most important of the appointments for senior students is that of Clerk to an Anæsthetist. The appointment is best held after that of full dresser, but it may sometimes be done concurrently with the latter appointment, provided that the day the anæsthetist attends does not clash with the days of attendance of the surgeon to whose firm the dresser belongs. The appointment, which is for one month, is now compulsory; that is, every man must have held it before he can present himself for his final examinations. Candidates for House Appointments are further required to attend a second course of instruction under one of the Honorary Anæsthetists, and to possess a certificate of proficiency. During his month of office the clerk attends one afternoon a week in the operating-rooms, either surgical or gynæcological, or at out-patients' when he

administers anæsthetics under the supervision of the anæsthetist. He thus becomes acquainted with the various forms of apparatus, and gains practical experience in the administration of chloroform, ether, and A C E mixture. He also attends one morning a week at 9 a.m. in the dental department, where he has ample opportunities of learning how to give nitrous oxide, nitrous oxide and oxygen, and ethyl chloride for dental operations. Before holding the appointment the student should attend Mr. Rowell's course of lectures on anæsthetics, for though this is essentially a practical subject, it is very necessary to know something of the action of anæsthetics and the symptoms occurring during anæsthesia, and also to know what dangerous symptoms to look out for, and the treatment that should be adopted. When making application for the appointment, the clerk may be in doubt as to whether to apply for the out-patient department or for the theatre. Each has certain advantages. The clerk will probably give more anæsthetics at out-patients', but those given in the theatres are usually of much longer duration, and useful experience is gained in keeping patients for some time in the stage of anæsthesia requisite for a prolonged operation. Hence there is but little to choose between the two.

The clerk should endeavour to watch the patient himself, and form his own opinion of the condition of the patient, and not be a mere machine for holding a mask at the direction of the anæsthetist. He should be careful to consider the feelings of the patient, especially when he is dealing with a nervous individual. Suddenly to place a charged A C E cone over a patient's face without a word of warning is to court difficulties, and even dangers, in the administration. He should remember that "burned faces," sore eyes, sore tongues, split lips and broken teeth are a reproach to an anæsthetist, and that if these accidents occur with private patients his reputation as an anæsthetist will be seriously damaged.

Lastly, it may be suggested that every man, after he is qualified, should take the opportunity of giving a few anæsthetics for emergency cases in the hospital in order to get accustomed to the responsibility of giving anæsthetics quite "on his own."

DAYS AND HOURS OF ATTENDANCE ON HOSPITAL PRACTICE.

Accidents and urgent cases of all kinds are admitted by the St. Thomas's Street entrance at any time of the day or night.

THE WARDS.

Medical Wards. — Dr. Hale White (2), Mondays, Tuesdays and Thursdays. Dr. Pitt (2), Mondays, Tuesdays and Fridays. Sir Cooper Perry (2), Mondays, Thursdays and Fridays. Dr. Shaw (2), Mondays, Tuesdays (10.30), Thursdays (10.30) and Fridays.

Surgical Wards. — Mr. Symonds (1.45), Mondays, Tuesdays, Thursdays and Fridays. Mr. Lane (2), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Mr. Dunn (1.30), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Sir Alfred Fripp (1.30), Tuesdays and Fridays. Operations (1.30) daily.

Obstetric Ward.—Mr. Targett (2), Mondays, Wednesdays and Thursdays. Mr. Bellingham Smith (2), Tuesdays and Fridays.

Ophthalmic.—Mr. Eason (2), Mondays and Thursdays. Mr. Ormond (2), Tuesdays and Fridays. Operations (2), Tuesdays and Thursdays.

THE OUT-PATIENT DEPARTMENT.

The days and hours of attendance in the Out-Patient Department of the hospital are as follows:—

Medical Cases.—Dr. Fawcett (1), Thursdays. Dr. Beddard (1), Wednesdays. Dr. French (1), Fridays. Dr. Hertz (1), Mondays.

Surgical Cases.—Mr. Steward (1), Mondays. Mr. Fagge (1), Wednesdays. Mr. Rowlands (1), Thursdays. Mr. Turner (1), Saturdays.

Obstetric.—Mr. Targett (1), Saturdays. Mr. Bellingham Smith (1), Thursdays.

Ophthalmic.—Mr. Eason (1), Tuesdays and Fridays. Mr. Ormond (1), Mondays and Wednesdays.

Dental.—The Dental Staff (9) every week-day.

Aural.—Mr. Turner (1), Tuesdays.

Skin.—Sir Cooper Perry (1), Tuesdays.

Throat.—Mr. Steward (1), Fridays.

Electro-therapeutic.—Dr. Hertz (1.30), Wednesdays and Fridays.

Actino-Therapeutic.—Mr. Iredell (11), every week-day.

Orthopædic.—Mr. Rowlands (9), Tuesdays.

DENTAL SCHOOL.

The dental student is supplied at the Medical Office with the Prospectus, Standing Orders, Notes on Probationary Work, List of Instruments, Calendar, and Clubs' Union Book.

These pamphlets should be carefully perused in order that acquaintance may be made with the general arrangements of the school and the scope of the work upon which the student will become engaged.

Instruments having been purchased at a dental depôt, the student should satisfy himself that he has been supplied with all of those described in the hospital list.

Probationary work upon the phantom head will occupy the freshman's time for about two months. This operative course, conducted by the staff demonstrators, is very comprehensive. It includes most of the conservative operations that the student will subsequently be called upon to perform upon patients, namely, gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. These manipulations upon

New Blood.

the dummy, when done in a thoroughly sound manner, form a capital ground-work in operative dentistry.

Pupils in Dental Mechanics are received at the hospital, and a systematized and graded course of instruction is carried out by a competent teacher.

The regulations of the Royal College of Surgeons of England require that students shall pass two professional examinations for the dental licence. At the first examination certificates must be produced, *inter alia*, of having been engaged in the practice of dental mechanics under a registered dental surgeon, or under the direction of the superintendent of the mechanical department of a recognised dental hospital, during a period of two years, and of having manufactured and adjusted six dentures and six crowns.

As this examination may be passed in the month of May the work of the first winter session should be largely devoted to demonstrations, dental mechanics, and lectures.

Students in difficulties about their work and needing advice are invited to consult the Dean, or any member of the Staff, who will be pleased to do what they can to promote the interests of students. W. A. M.

The Choice of a Microscope.

One of the indispensable adjuncts to medical study in these days is the microscope. The glowing tribute which Sir Samuel Wilks has paid to this instrument is by no means an extravagant one, when it is borne in mind how exceedingly helpful towards the acquisition of knowledge in almost all departments of science the microscope has been. To quote Sir Samuel's own words, "It has opened up a new world, and created a new science." Perhaps the student, when he comes to make his first acquaintance with these new fields which the microscope has enabled us to explore, will fervently curse the existence of an instrument which has added so much to his already crowded syllabus of work, but as he becomes more friendly and intimate with bacteriology, histology, and microscopical pathology, he will also become keenly attached to his microscope, so much so, in fact, that—as we hear on good authority—it stands very low on the list of pawnable things that medical students periodically carry under the shadow of the sign of the Medicis.

The choice of a microscope, then, is a serious matter, and we would impress on the new student the importance of exercising proper care and discrimination in his selection of a good instrument. The advice and help of his teachers are always available, and it would be well for him to consult them when he has some special make of instrument in mind. For physiological purposes "the microscope must have two objectives, a $\frac{2}{3}$ inch and a $\frac{1}{6}$ inch, a nosepiece and an indicator fitted to one of the eyepieces. . . . An inferior instrument is worse than useless, for it is essential that the student should buy an instrument which will be of some use to him in future years, when, as a practitioner of medicine, he desires to examine tumours, urinary sediments, sputum, etc., for purposes of diagnosis. Antiquated instruments, such as those sometimes handed down as an heirloom in a family of doctors, are practically useless." In the biology class the student will make his first acquaintance with the use of the microscope, and although here a comparatively simple instrument with a low power suffices for most purposes, he should bear in mind that in his next year, when he comes to study histology, a good compound microscope is indispensable, and that afterwards he will want a superior instrument, fitted with a condenser and an oil immersion lens, for bacteriological work. The ideal way, of course, would be to invest in a thoroughly reliable instrument, fully fitted; but such instruments are expensive, and where money is a consideration to be regarded, a better plan would be to buy a sound stand, by one of the recognised makers, to which the various necessary addenda, such as revolving stage, condenser, etc., can afterwards be fitted. At first the two objectives above stated will serve for all practical purposes; later, an oil or a water immersion becomes necessary, while a triple nosepiece is desirable as well.

There are many standard makers whose names are recognised guarantees for the excellence of the instruments they manufacture. Of foreign makers, Zeiss and Leitz are, perhaps, the best known, and if the student is fortunate enough to be able to invest in one of their better-class instruments, he need have no fear that he will afterwards regret his purchase. These instruments can be purchased at most shops where microscopes are sold, and the Zeiss Company possesses a London agency in Margaret Street, Regent Street, W.

In choosing a microscope, it is desirable that it shall be of such a class as will meet all the requirements of the student's course. This of necessity means a considerable initial expense. Where, however, causes prevail which prevent this being done, a microscope should be chosen to which additions can be made from time to time as necessities dictate.

W. Watson & Sons, of 313, High Holborn, W.C., whose fame for British microscopes is world wide, make a speciality of constructing various parts of their instruments with interchangeable parts, and also offer high-class instruments with every mechanical convenience at very moderate prices.

For a student's microscope of proved reliability they recommend their "Praxis" model, which with 1-inch and $\frac{1}{4}$-inch objectives, eye-pieces, and case costs £6 10s., while their "Bactil" stand has been designed specially to suit the wants of the beginner, as well as those of the most advanced worker. It has mechanical movements to the stage, giving a range of two inches of traverse, a compound sub-stage, and is supplied complete with $\frac{2}{3}$-inch and $\frac{1}{6}$-inch objectives and mahogany case for £12. Abbe illuminator and $\frac{1}{12}$-inch oil immersion objective can be added, together with triple nose-piece and an extra eye-piece, for £7 7s. 6d., making the total cost £19 7s. 6d.

Naturally, the selection is not limited to the two models that are mentioned, but either of them will be found thoroughly efficient for hospital work.

Watson's $\frac{1}{6}$-inch is a renowned lens, not only on account of its fine performance, but from the fact that it has the great working distance of one millimetre, enabling thickly covered objects to be examined without inconvenience.

The Bausch and Lomb Optical Co., of Rochester, U.S.A., whose London address is 19, Thavies Inn, Holborn Circus, E.C., manufacture a series of microscopes varying from the simplest to the most elaborate models. Their stand BH is specially adapted to the requirements of medical students, as it can be used in its simplest form for the earlier work, and the additions necessary for more advanced work can be afterwards made. This microscope, with $\frac{2}{3}$, $\frac{1}{6}$, and $\frac{1}{12}$ oil immersion, objectives, two eye-pieces, triple nose-piece, and Abbé condenser, is priced at £13 12s. 6d., and should satisfy all the needs of the ordinary student from start to finish.

Other good makers are Messrs. Swift, whose instruments are slightly lower in price; Messrs. Crouch, who supply several instruments suitable for students, and Messrs. Ross. From all these makers catalogues and specifications may be obtained on application. Messrs. Millikin and Lawley, of 165, Strand, W.C., list a good serviceable article in their "Stand A." model, which, fitted with mechanical stage and two objectives, and triple nosepiece, is priced at £7 6s., and to which a condenser can easily be fitted. All these instruments we have mentioned are thoroughly reliable, strongly and firmly made, and possess the usual fine and coarse screw adjustments.

For bacteriological and blood examinations the student will need an oil immersion. This can be got from any reputable maker. The Zeiss and Leitz oil immersions enjoy a world-wide reputation for excellence, although they are a trifle more expensive than those by English makers. Messrs. Watson and Son make a speciality of objectives, and their "Parachromatic series" is specially suitable for students. Their $\frac{1}{6}$, priced at £1 10s., which is supplied with their instruments enumerated above, is a particularly fine lens, giving an exquisitely crisp definition, combined with a flat field and a good working distance. Their $\frac{1}{10}$ water immersion is listed at £4, while their $\frac{1}{12}$, a new lens specially intended for the bacteriological student, is listed at the same price. They also supply a $\frac{1}{16}$ oil immersion (magnifying up to 3200 diameters, with a holoscopic eyepiece) at £6. Mr. Baker supplies a sound, reliable $\frac{1}{12}$ at £5, and a $\frac{1}{16}$ oil immersion at £6. A Zeiss oil immersion costs £8, a Leitz, £5, and a Reichert also £5. With most of these a bottle of immersion oil is supplied.

If the student is unable to go to the expense of buying a new instrument, he can often obtain a good second-hand microscope at a comparatively cheap price, and in the same way an oil immersion lens may be bought. It is advisable, in buying a second-hand instrument, to obtain it on approval, and give it a thorough trial before completing the purchase. Sometimes a bargain may be picked up at a pawnshop, or a second-hand dealer's shop; but there are several firms which deal in second-hand microscopes, and the student cannot do better than give these a trial. Their instruments are generally in good order and well preserved; in many cases nearly new. Messrs. Millikin & Lawley have a large number of second-hand instruments and lenses in stock by all the recognised makers, which they list at prices much below those charged for new instruments.

For histological work, the student will find a slide box, or cabinet, to contain his finished slides desirable. These may be bought at any microscopical instrument makers, the nearest being Messrs. Stanley, whose place is close to London Bridge Station.

Instruments.

Both in the wards and in the dissecting-room and the physiological laboratory, the student will find that he needs several instruments. In the wards he will want a stethoscope, dressing instruments, tape measure, etc., and in his previous work a dissecting case is an absolute essential. The number and choice of his instruments depend to a large extent on himself. If he is sufficiently keen to think it necessary that he should possess a blood-count apparatus, pocket spectroscope, and a good ophthalmoscope, his outlay will of course be considerably in excess of what he would spend were he to rest content with possessing the absolutely indispensable only. But such outlay, we would venture to remind him, will not be money thrown away. In after years he will find the possession of these instruments not only a great help but a sound investment, provided he has invested in good instruments, which will stand the wear and tear of hospital practice. It is true all the wards possess a certain number of necessary instruments, lists of which are affixed to the cupboards where they are kept. But the advantage of possessing an instrument of one's own, independent of those that the hospital provides, is obvious. Personal possession means personal interest, and though familiarity may breed contempt, it has its advantages.

There are many instrument makers in London, the majority of whom make a point of catering for the new student. We would not advise anyone, however, to write for a catalogue of surgical instruments. These bulky volumes are so large, and contain so much, that the average student will find it a work of some difficulty to make his choice from amongst the many and various models submitted to him. Rather would we advise the new man to find out from his teachers what he needs for his work, to make a list of such instruments as he requires, and then to go to one or other maker whom he has selected, and choose his necessities from their stock. We therefore merely give the addresses of some of the better known firms, along with a few particulars of the items they stock for students.

Messrs. Allen & Hanburys, Ltd., Plough Court, Lombard Street, E.C., a firm within easy walking distance of the hospital, have a large and varied selection of surgical

and other instruments. Their dissecting cases range from 10s. 6d. upwards, and are excellent value at the prices listed. They supply a special binaural stethoscope with flexible metal tubing at 12s. 6d., and have a large selection of students' dressing cases, fitted and unfitted. This firm also manufactures various models of hypodermic syringes, ranging in price from 2s. 6d. to 8s. 6d., and lists all the usual blood-counting apparatus. Their instruments are of English manufacture, thoroughly sound and reliable, and satisfactory in every way. Messrs. S. Maw, Son & Sons, 7–12, Aldersgate Street, E.C., have an equally large stock open to inspection. They list a large number of useful stethoscopes ranging in price from 4s. 6d., to an improved pattern with finger rest, catalogued at 8s. 6d. They also supply dissecting cases, dressing cases, and have in stock every kind of apparatus the student may find useful or necessary. Their instruments are guaranteed of English manufacture, and are catalogued at comparatively moderate prices. Messrs. Arnold & Sons, of West Smithfield, and Giltspur Street, E.C., who are instrument makers to St. Bartholomew's Hospital, manufacture their own instruments, and have special lines in dissecting and dressing cases for students. They also supply excellent sets of bones, half skeletons being priced from £2 19s. 6d., and disarticulated skulls from £1 15s. These sets are specially selected and may be relied upon to be sound. This firm lists a patent stethoscope, their "Phonophore," which has obtained high praise from those who have used it. It is priced at 6s. 6d. single tubes, and at 12s. 6d. binaural model. Messrs. Down Bros., Ltd., whose address is 21, St. Thomas' Street, S.E. (just opposite the hospital gates), are the instrument makers to Guy's Hospital, and the instruments turned out in their factory are as excellent examples of their kind as one could wish for. The student would do well to give Messrs. Down a call and inspect their large and varied stock of dissecting cases, dressing cases, midwifery bags, and last, but not least, their overalls. An overall is a necessity for the ward clerk, and by far the majority of overalls in this hospital have come from Down's. The firm supplies all apparatus necessary for work in the wards or in the laboratories, and all their material is of the best quality. The Holborn Surgical Instrument Company, Ltd., 26, Thavies Inn, Holborn Circus, E.C., have also a large stock of instruments, at comparatively cheap prices, while Messrs Millikin and Lawley, Strand, London, W.C., have always on hand a large variety of new and second-hand instruments and bones. Further particulars on these matters may be obtained from Mr. Hancock in the dissecting-room.

At all these firms the student may obtain blood-counting apparatus, ophthalmoscopes, pocket spectroscopes and other desirable, if not absolutely indispensable, instruments. Messrs. Watson & Sons, of 313, High Holborn, and Mr. Baker, of 244, High Holborn, however, list special sets of blood-counting apparatus designed for students and clinical use, and in addition stock several sets of microscopical apparatus, including stains, etc. Messrs. Stanley, Station Approach, London Bridge, who are opticians to Guy's Hospital, have a large and extensive stock of microscopical apparatus, such as slides, specimen boxes, etc., and their shop is conveniently situated for those who cannot afford much time. Their articles are of excellent manufacture, and thoroughly satisfactory.

As in the case of microscopes, the student can often obtain second-hand instruments at a comparatively cheap price. Sets of bones discarded by those who have no longer any pressing need for them may often be picked up cheaply, and the student would do well to interview the dissecting-room attendant (or the commissionaire who will usually be found in his den underneath the Medical School Buildings). From both second-hand scalpels, forceps, or complete dissecting cases may sometimes be obtained. In buying second-hand instruments the student should assure himself that the articles are sound and reliable; and any instrument decided upon should be tried and approved of before it is bought. If at all in doubt his demonstrators will always be ready and willing to help him in deciding whether to buy or leave them.

Books.

The student who wishes to obtain his books at once should not take the first he sees on any particular subject, but would be wise to consult his demonstrators first; the number of text-books is very large, and the choice is a difficult matter to the inexperienced. Roughly speaking, second-hand books are very seldom worth anyone's while to buy, chiefly because medical science is progressing so rapidly that new editions are constantly being published. Especially is this the case in Physiology, where a book may become quite out of date in many points in the space of a couple of years. The other sciences of the first and second years' study are scarcely less pronounced in this progress. Hence a student is strongly advised not to purchase his books for his second year's work until that year has commenced.

The number of publishers of books for medical students is great. Messrs. Churchill publish Taylor, Jacobson, Goodhart, Fagge, and many other well-known works. Messrs. Macmillan publish Allbutt, Foster, and a great number of first-year books; Messrs. Longmans, Green & Co. publish the famous Gray's Anatomy. Mr. Murray also publishes many well-known medical books, as also do Smith, Elder & Co.; Philip & Son; H. K. Lewis; and Cassell & Co.

As we have mentioned, it is rarely that second-hand books will be required, but there are cases in which they are valuable. Mr. Chas. Sawyer, 29–31, New Oxford Street, W.C., has a long list of last editions at very moderate prices, and there are other second-hand booksellers.

All books can be obtained from Mr. H. H. Grattan, in Borough High Street, who is the "official bookseller" to the hospital. Many well-known books he can supply over the counter; any others desired he will have in an hour or two.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Medicine and Socialism.

DEAR SIR,—Having read with much pleasure Mr. Bennett's interesting contribution in your last issue but one, I should like, with your kind permission, to draw the attention of Mr. Bennett, and of all those who believe with him in the practical importance of Eugenics, to the existence of the Socialist Medical League, whose list of subscribers is sadly deficient in the names of Guy's men.

Like the Eugenists, we who are Socialists stand for all that tends to ennoble mankind, while our object, too, is to promulgate and materialize the important principles of good breeding. We believe, with them, in the great sanctity of human parentage, and endeavour to promote such reforms in the existing constitution of Society as will ensure and maintain the future welfare of our nation's posterity. And more; for however great a part hereditary tendencies may play in the welfare of any individual, we are undoubtedly of the opinion that the pre-natal and post-natal influences brought to bear upon the immediate environment of the developing individual are of far greater consequence. Day by day statistics are growing to show how materially such influences do affect the development and growth of a new life; how the under-feeding and hard work of the expectant mother, and the unhygienic conditions under which she lives and labours, help to deform and kill her unborn babe; and how, when the child is born, the same conditions of environment and nourishment tend to stunt its growth and delay its development. We greatly deplore this want of national foresight, and unhesitatingly declare that the shocking neglect of its poor mothers and little children is the surest reason for that cry of deterioration that is raised everywhere in the nation's midst to-day. In these days of civic rights the claims of the unborn and newly-born babes must be heard and answered, or we, as a nation, will eternally regret our folly. That is why we who are Socialists believe more in the value of the positive side of Eugenics than in that of its negative aspects. We wish not only to eradicate the undesirable elements of the general stock, but earnestly desire, as far as is possible, to completely remove the conditions which have tended to produce such abnormalities, and so to favour and stimulate the fuller development and the greater growth of all that is good and noble. Ours is a creative policy. Our aim is not so much to destroy as it is to construct, to build up, a new environment, a new society, a new culture; to advance, in fact, one step nearer towards that goal of man's ultimate realisation of the superman.

It was with these objects in view that the Socialist Medical League was formed, and it exists solely to encourage the growth and development of a race that is sound both mentally and physically, and is strong in numbers. To attain these ends we desire to enlist the knowledge and organise the co-operation of those engaged in medical practice and research towards the reconstitution of Society upon a Socialist foundation.

It comes especially within the province of the medical profession to call attention to the preponderating importance of social environment, especially child nurture, education, conditions of employment and housing, as factors in the production of disease; to point to the necessity of securing a drastic change in these conditions as the only scientific and effective method of disease prevention, to emphasize the economy of prevention as compared with cure, to insist that the chief means to prevent the great bulk of disease is by alteration in the present economic basis of Society.

In addition to the aim of every Socialist body, viz., the reorganisation of Society upon lines of collective ownership of the means of production and distribution, we work more particularly to obtain:—

(1.) A National Medical Service, properly salaried, including trained nurses and dispensers, with an adequate provision of hospitals, nursing and convalescent homes, and systematic provision for the sick.

(2.) The socialisation of medical education and a national provision for medical research.

(3.) The extension of public hygiene, with a really efficient administration of the Public Health Acts, controlled by a Government department exclusively devoted to public health.

(4.) The promotion of measures which tend to the prevention of disease, such as:—

(*a.*) The teaching of the simple laws of health and biological requirements for a race sound both mentally and physically.

(*b.*) The co-operation of medical practitioners with special knowledge in all educational administration.

(*c.*) The closer application of physio-psychological knowledge to education.

This, Sir, is our programme, and these are our aims. If any of your readers should be interested and should wish for further details, I am sure the Hon. Sec. of the League, Dr. Davidson, of 235, Uxbridge Road, W., will be only too happy to supply him with the information. In conclusion, I should state that membership is limited to Medical and Dental qualified men, and that the minimum fee is five shillings per annum. Medical and Dental students are admitted as Associates on the payment of an annual fee of one shilling.

Thanking you, Sir, for your kind indulgence,—I am, yours faithfully,

HAROLD STEPHENS.

The Vale of the White Horse.

BY THE WRITER OF "CONFESSIO MEDICI."

DIDCOT, a place unfavourable, alike by name and by nature, to poetry, is none the less a gate into the land of romance. I had always thought of Didcot as of an ugly bare place on the way to Oxford. There, each term, the train had swung to the right, and I had begun to look out for Culham, Radley, Nuneham, Iffley, and that life which is Oxford. To the left was a foolish line wandering off to Swindon. These ill-sounding words, Didcot and Swindon, raise dull images of refreshment rooms and platforms; but are now for me the first and last links of a golden chain of villages, the Vale of the White Horse.

Not that Wantage and Faringdon are villages. They would hardly like to be called less than country towns; for they held, once on a time, palaces of the kings of Wessex. But if I were king of Wessex I would not live in either of them; I would live at Woolston, having another palace, for a part of the year, elsewhere. Surely, in May, Woolston is the home for a king. It is three miles from Uffington Station, and I saw but one motor in four days. That is regal state, and more than regal comfort, to be where motors are not. But you must not imagine that Woolston is a stupid place. There is not enough of it to be a place; and how could it be stupid, when every inch of its meadows and hedges was come back to May? I am inclined to believe that I found there a new fact of Spring, missed by all poets, and everlastingly hid from all motorists.

The White Horse Inn, at Woolston, lodges and boards poor pilgrims at four shillings a day. It is a real country inn. Heaven be praised, it is not a hotel. The slope of its rafters, the raw simplicity of its whitewash, and all its little rooms, and the way it has with its windows, are those of a real inn; and they give you cream twice a day, if not thrice, and the bread is good. And you are so near the White Horse himself that, if he were to neigh, every window of the inn would rattle; for he is but half a mile off. It is wonderful, this White Horse Hill, a miracle of beauty, like the rest of the world in May, and one of the best-kept secrets in the history of England. The present Government, if they knew who cut the White Horse on the hillside, and built the camp that is the hill's crown, would tell us in a week. I only know that once there was a hill: and I seem to see primal man disputing the mastery of its heights with primal brute. Then I see the ownership of the hill rising in honour, from brutish to British, and from British to Roman. The neighbouring cromlech is British, though its name be Saxon; but the fine road that marches behind the camp, going like a tyrant the shortest way to achievement, must be of the mind of Rome. Then I see the whole width and length of the Vale filled with the ghosts of Saxon and of Dane, and the fighting rolls this way and that, and at last the outline of the horse, in honour of Alfred, begins to show itself above the Vale. Then comes the silence of the Norman Conquest, and the ghosts blend and fade. But man is a fighting animal, and the Vale drank blood again, a long draught of it, in the Civil War.

It was in that war that the saints in the church porches lost their heads, those of them who had kept their heads all through the Reformation, which was no easy task for stone saints. In the Civil War the Vale was loyalist, after the example of Oxford and of Newbury; therefore a vast banner hangs to-day in Shrivenham church, a white banner of such ample folds as betoken a castle and a siege. Once the war came to an end, the Vale had no more adventures: and the next ghosts were those of Squire Brown, of Uffington, and his son, Tom Brown, the immortal boy who had the school-days. And Squire Brown set me thinking of Mr. Brown, who had the Englishman's Home.

Here was a dismal *Finis* put to my vision, a horrible decadence. *Saxon and Norman and Dane are we.* So many rivers of blood have been poured out and mixed to make England, to uplift her: and here was the slipshod useless third-rate serio-comic Brown shuffling along at the end of the pageant, silly and incapable, yet, of all the figures in our history, most portentous, and more terrible, in his way, than Death itself.

Some kind friends had taken my wife and me to "An Englishman's Home." So great is their kindness that they provided for us the unaccustomed luxury of a box. By this device of hospitality they sharpened the pain of the play, darkened its horror, and heaped up its shame. Here was a play that refused all comfort, and we were so comfortable. Disgrace and ruin were in the air, and we were looking so well-established and exclusive. The appeal was made to every soul in the house to forget the distinction of classes, whereas a box emphasizes all that is most reserved and privileged. In the opposite box was a very grand gentleman, who wore gloves and rested his hands on a walking-stick of no ordinary wood: and the elegance of

the ladies in the stalls was oppressive. For the play was heavy with death and with judgment, and you could almost hear the voices crying that Babylon was fallen.

So I got up from the hillside, and shook myself, and took the magic road to Lambourn. It is the distinctive beauty of this walk that much of it is on turf. To walk bareheaded, having the touch of grass under the feet, and sunshine everywhere, can hardly be dull; and the silence is good company. Lambourn, which is a place of singular excellence, with old houses mighty fine, and a most admirable knight and his lady side by side in the church—Lambourn, I say, has an inn where the food is worthy of all praise. Let him who is tired of London and has a sovereign to spare, in May, go to Woolston, and walk or cycle, out of the way of accursed motors. And if you do not care to look for ghosts, you need not. Spring, in the Vale of the White Horse, calls you to look not for them but at her, welcoming you to her kingdom.

Appointments.

Civil.

COWPER, C. M. L., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Arnesby District of the County of Leicester.

LAWRY, R. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Penzance Education Committee.

MAY, W. N., M.D. Lond., has been appointed District Medical Officer of the Wokingham Union.

MUSSELLWHITE, W., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health of Spennymoor Urban District, Durham.

STONE, ERNEST R., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital for Children, Hackney, E.

Naval and Military.

Surgeon F. R. FEATHERSTONE, R.N., has been appointed to the *Racer*, additional, for Royal Naval College, Osborne.

Territorial Force.

ARMY MEDICAL SERVICE.

Lieutenant-Colonel R. H. LUCE, M.B., F.R.C.S., from the 1st North Midland Field Ambulance, Royal Army Medical Corps, to be Colonel, on appointment as Administrative Medical Officer of a Territorial Division, April 19th.

Attached to Units other than Medical Units—Captain PETER PAGET to be Major (dated December 28th, 1907).

Infantry.

4th Batt. Buffs (East Kent Regt.)—ARTHUR M. HENRY to be Second Lieutenant.

"O Tempora, O Mores!"

[The long-anticipated removal of the Front Surgery from St. Thomas' Street to Maze Pond took place on Saturday last, September 11th.]

"Rumour," as the well-known poet
Put it, "is a lying jade."
As I oft had cause to know it,
What cared I what rumour said?

When I heard the clerk and dresser
Whispering that Guy's would change,
Knowing Guy's, I must confess a
Thought, it seemed surpassing strange.

Constant as the extern's *Pulex*,
Deemed I Guy's would ever be;
Nor did I, 'neath the Super's rule, ex-
-pect such change of front to see.

Now no longer will the coster
Side by side with Willie's car
Wheel his luckless pal who's "lost a
Deal o' blood since then and nah!"

When without was murk and mire, light-
-hearted nurse and dresser, too,
In the bright and homely firelight
Worked and talked the long hours through.

Can your fancy now create a
Scene with youth and maiden shy,
Before a patent radiator,
'Neath the porter's watchful eye?

Still, some things one cannot alter,
While there's still a G. H. P.,
Clerk and dresser will not falter,
Giving Mist. Gent. et Sodæ.

Still may Robert there be thinking,
"Dulce est desipere,"
And the dresser, while he's drinking,
"Dare quam accipere."

MERCURY.

Children in Health and Disease.*

THAT Dr. Forsyth is right in thinking that a book treating of child-life from a scientific standpoint is needed at the present time, and further that he has been very successful in dealing with a subject covering such a wide field, will be the opinion of all who read his interesting treatise. We are quite certain that the book will appeal to a far wider circle, that it will be more widely read and studied, than any volume which has been reviewed in the columns of the GAZETTE for many a day. To us, an Imperial people, the subject is one of vital importance. It concerns the future welfare of our race. With a literary style which we must admire, and which is all too uncommon among members of the medical profession, the author has set before us problems—solved, unsolved and in process of solution—over which for many years past politician and educationalist, clergy and laity, socialist and aristocrat, have met oft times in conference, separating too often in dispute. "Although," says the writer in his preface, "I have addressed myself primarily to medical readers, many of the subjects I have dealt with are of equal importance to teachers and others, some of whom may, however, retain the belief that the doctor is a disturbing influence in school life. I shall be more than satisfied if my book succeeds in convincing them that childhood offers the most promising field for the labours of the physician no less than those of the educationalist and the publicist, and that for the successful co-operation of their different activities it is only necessary to keep in mind the motive that they share in common—the well-being of the coming generation."

The author devotes the leading chapters to physiology, and first of all, under the heading of antenatal physiology, he discusses the influence upon the developing child of the intrauterine environment. Then are detailed the important changes occurring during the transition stage at birth, when, owing to new conditions, the child is required to make rapid readjustments in its economy in order to save its life. From this point we pass on to consider the physiology of growth, of special functions, of metabolism, and lastly of puberty, when the physiological differences between male and female become accentuated by the appearance of secondary sexual characteristics. Two chapters follow which are devoted to the psychology of children, and then two others upon the hygiene and the medical aspects of schools and school life. These four articles, together with a later chapter upon the training of children are, in our opinion, the best in the book, and could only have been written with an extensive knowledge of child-life, by one deeply interested in children and their ways.

There is no doubt, of course, that of recent years a great deal more attention has been paid to questions of hygiene in the case of school children than was formerly the case. But we venture to say that the subject, both at day and boarding schools, has never been over-estimated in importance, neither the measures taken for improvement in excess of the requirements. Far more frequently the changes made have been insignificant, and parents have no idea of the vast scope yet remaining for reforms both in dormitories and class-rooms, quite apart from the question of dietary. There is an idea, very prevalent in some educational quarters, that if you are solicitous for the school welfare of your boy you are tending to pamper him, and that the product of your anxiety will be a "molly-coddle." We hope that Dr. Forsyth's book will still further tend to dispel this illusion.

Because the fare is to be simple there is no reason why it should be badly or carelessly cooked, still less that it should be poor in quality. But when such rumours are raised that all is not as it should be, you will always find some individual ready to shriek out that the race is a decadent one—that the palate has grown refined, the muscle has become soft, and the intellect dulled—that we are not as were our forefathers. It is as well to remember, however, that among both masses and classes the art of cooking has deteriorated. We are referring to simple cooking, and not to the successes of the Maison Jules, for there is a training school not a hundred miles from London Bridge where such criticisms have even recently been made, and with all justice. In the matter of public elementary schools, Dr. Forsyth refers to the folly of forcing instruction on children who, hungry and ill-nourished, cannot benefit by it.

Many people are quite unaware of the fact that twenty-five years before the Provision of Meals Act became law, the system was introduced in Paris, where the cost to the ratepayer is only about three per cent. of an education expenditure amounting to one and a quarter

* *Children in Health and Disease.* By David Forsyth, M.D., Physician to the Evelina Hospital for Sick Children; Assistant Physician to Charing Cross Hospital. (John Murray, London.)

millions. The improvement in the health of the children, and the additional benefit which they derive from their schooling, has been out of all proportion to the cost of the *cantines scolaires*, and we venture to think, with the author, that as the Act becomes operative throughout the whole country, corresponding advantages will be obvious among English children of the Public Elementary Schools. We notice with interest that he condemns the system prevalent at many boarding schools of early school before breakfast. It is years now since Dr. Clement Dukes drew attention to the harmfulness of this method of starting work without food, but we believe we are right in saying that it is still to be found in the time-table of most public schools in this country. As to the exact dietary which is suitable, there will be much difference of opinion. We do not fancy all medical men will agree with him that meat is a *necessity* for schoolboys at two of the meals; we think rather that provision should be made for supplying wants peculiar to different individuals at different ages, and that no child should be tied down, often with fear of punishment, to a rigid fixed diet.

Then, again, in matters of sleep, housemasters are often at fault. A boy of thirteen requires nine to nine and a half hours undisturbed rest. If he is not in bed until 10.0 p.m. he should be undisturbed until 7.30 the next morning. In most public schools the first bell rings in the morning between six and half-past, and the return of the senior boys to the dormitories at night has kept all the others awake until 11 o'clock or even later. We think that among teachers recognition is fairly general that it is the short lesson which pays. The duration should not exceed a half to three-quarters of an hour with an interval before the next subject. There is, however, still an excessive demand still made upon children in the matter of home lessons, and if evening work is insisted upon it should be of the lightest character. Invariably, however, these are a preparation for the work of the next day, demanding, therefore, the reasoning power of the child at a time when he is most unfitted for it. "Only too often," the author says, "the amount of home lessons is an index, not of the children's idleness during school hours, but of the teacher's own incapacity; and the more successful the teacher the less will be the need for out of school work."

Of all the chapters in the book, that on the "Training of Children" will appeal to many people who have shouldered, comparatively early in life, parental responsibilities.

"Probably," he writes, "we have no more valuable test of an adult's capacity to handle children than his employment of blame and encouragement. Very many children have their lives made unhappy because their elders try to exact from them the same standard of morality as is expected from grown men and women. If parents, no less than teachers, would understand that children cannot possibly possess the sense of right and wrong that comes with adult years, there would be less injustice and much less unhappiness in the nursery and in the schoolroom."

There are other scathing criticisms of the methods of education in vogue at the majority of our schools—the worship of the examination fetish — the fact that the cultivation of "memory" becomes the centre of the educational system. "With monotonous regularity come half-terminal, terminal and annual examinations, when the absorptive power of the memory sponge is estimated by methods which are not concerned with any of the other indications of the child's developing intelligence." It is, as he says, this system of examinations which necessarily sets the character to modern education. Examinations infect the whole system with a false intention, and lead to the minds of children being systematically "forced."

"We cannot be surprised, therefore, that but little thought is given to those slow-growing but malleable processes of mind which are gradually converting the child into a man, and are destined to make—or spoil—his adult life. The golden harvest which these qualities may bring ripens too late to interest his short-sighted instructors. They look for a speedy and tangible return for their efforts, and are impatient for a sight of the fruit when they should merely be tending the opening leaves."

Further thoughtful remarks follow upon co-education, the special training of boys and girls, and, in concluding the section, reference is made to the personal influence of the teachers on the pupil. Special attention is directed towards the type of woman chosen at the present day "to uphold the mirror of womanhood to a younger generation." They are mostly women who have been compelled, by years of exacting study, to follow a life which is not the natural life of a woman. "Their professional work, taking the place of marriage, has necessarily shut them out from the consummation of a woman's life. They are chosen on a plan which definitely excludes those who have had

experience in the very matters which are of the foremost importance in a girl's education. The absurdity of the arrangement will, perhaps, be better realised if we look for a moment at the qualities we seek in a master for our boys. We endeavour to place them under the control of a man of matured character, who has had long experience of men and things, who knows the world as men know it, and who is able to fill his school with an atmosphere that is manly in the best sense." "Yet," he adds, "we are at no pains to obtain corresponding advantages for our girls. How often does a parent select a school for his girls because its headmistress has been a shrewd observer of the world as women know it, and whose views of life have been widened and mellowed by her experience as a wife and as a mother? Does he not look for a school where the teaching staff possess University degrees, hold examination honours, and are reputed to be successful teachers of piano-playing and modern languages?" There is a great deal here which will provide much food for thought among a very wide circle of people in all ranks and positions of social life. Other chapters in the book are devoted to Infant Mortality, the Medical Inspection of School Children, Conditions of Infant Life, Idiots and Backward Children, and of all these the author writes with much skill. It is interesting to note, that while Dr. Forsyth is in favour of the provisions which have been made by law for the medical inspection and supervision of school children, he is silent as to the method by which the *treatment* so recommended shall be carried out. The subject is a vexed one. Management committees, honorary staffs and general practitioners are divided amongst themselves as to whether medical attention shall be provided by the hospitals, with or without pecuniary assistance, by the Poor Law Authorities at their various infirmaries, or yet again at school cliniques officered through the education authorities. Personally, we believe that, in London, at any rate, school cliniques will eventually be organised, officered by the school doctors, who are already appointed for part time work, and who will in future be required to devote more time to their duties. We notice that in the matter of dental treatment the author is in favour of such a method. "It is to be hoped that before long the medical officers of schools will be given the assistance of dental surgeons, who by periodic examination and *treatment* of children's mouths will be able to effect an improvement in school health of great benefit" (p. 143).

The last four chapters are devoted to disease and some points in the treatment of sick children. The peculiarities and differences are noted which distinguish the sick child and the adult invalid. "In such matters they are too young to appreciate the wisdom of curbing present desire in order to escape future trouble, still less of submitting to present discomfort in order to ensure future well-being. With them, therefore, a strong lever is lacking by which the physician is able to keep his older patients on the narrow way that leads direct to recovery. As soon as unpleasant symptoms, pain, or discomfort are smoothed away, the child, happy in forgetting trouble, is as likely as not to repeat his original indiscretion."

"All of which is very obvious," the cynic will exclaim. But the thoughtful student of human nature will observe that the brushwork is that of a master-hand, and that the painter is as happy and successful in dealing with his highest lights upon the fascinating canvas of child-life as he is truthful and sombre in delineating the grim realities of his deepest shadows.

It only remains for us to congratulate Dr. Forsyth upon the results of his labours. We are sure that the book will be a source of interest and pleasure to all its readers.

H. C. M.

"I Never Eat Potatoes."

I AM delighted to read in the July "gout" number of the *Practitioner* Dr. Arthur Luff exalting the potato out of its common degradation. Potatoes, and plain boiled rice, such as is eaten with curry, but which I eat alone at any meal, are pleasant changes from bread. Mark you, each grain of rice must be dry and separate from its neighbour. I remember in a Buckinghamshire village seeing my paternal grandmother, who lived till eighty-five, having a daily eleven o'clock lunch of a good-sized potato, eaten while held in the hand like an apple, with a little salt added to the floury morsel.

Of course, a potato needs some cooking, or better, steaming—indeed, she or he who can cook a potato well day by day can be trusted to cook most things. And further, a potato needs some digesting, and that digestion must be in the mouth.

Now if the potato is cooked hard, and swallowed hard, then don't blame the potato, but scold the cook and the eater. If the cook finds the potato won't turn soft, she should mash it, and what is nicer than mashed potatoes with a little salt butter added? A son of mine in the Tasmanian bush wrote home telling me how well he fared for weeks on potatoes and butter with only a little tinned meat and tea, no baked bread being obtainable.

Likewise the eater should take care to mash every bit of potato in his mouth before swallowing it.

In vomited food, who has not often seen Brazil-nut-sized pieces of undigested potato, which would have had to wait till they were squirted through the pylorus into the duodenum before they could reach a solvent?

Eaters are too lazy to crunch, and to give time for their saliva to get a good hold of the potato starch which is so picturesque an object under the microscope. Why, the potato is twice as enjoyable if allowed to melt gradually in the mouth! I remember so well, when dining with a Sussex farmer of splendid height and equally noble girth, being struck by the huge dish of potatoes which occupied the *centre* of the table, the meat and other additions occupying subordinate places. The repast was potatoes and meat, etc.; but potatoes, half a dozen on your plate straight away. Now everything thrived on this farm, not only the farmer and his wife (they had no children), but every field and every animal.

Tell your cook to give you your potatoes cooked and presented on the table in a different manner every day—boiled in their skins, boiled without their skins, baked in their skins, baked without their skins, chipped, mashed, fried, made into soup, or at bedtime used as a poultice if you happen to need such a thing. I remember the mother of a little patient saying she did not want me any more, as she had cured her child's throat with potato poultices.

I like a meal, especially tea-time, at a strange house (where you can eat bread and butter spread by yourself, not cut and spread butter and bread), because of the bread, which is sure to be different to that of one's own tea-table. Why not have a slightly different kind of loaf every day? They are all made and to be got—Vienna, French, old English household, cottage, Coburg, bakers' brown bread, aerated bread, Hill & Son's whole meal, currant bread and several others, and there is a fair amount of potato in many breads.

So I advocate potatoes and breads in no scant measure for simple healthful living.

"AFTER THIRTY YEARS."

Change of Address.

Arthur W. Parratt, L.D.S., from 21, Whiteladies Road, Clifton, Bristol, to 8, Spa Buildings, Cheltenham.

Lieutenant M. A. Rahman, Indian Medical Service, from the College, Guy's Hospital, to the R.A.M. College, Millbank, S.W.

Ernest R. Stone, L.R.C.P. Lond., M.R.C.S., from Guy's Hospital to the Queen's Hospital for Children, Hackney Road, E.

W. Hale White, M.D. Lond., F.R.C.P. Lond., from 65, Harley Street, W., to 38, Wimpole Street, W. (Telephone 1238 Paddington.)

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Life in the Indian Medical Service.

BY CAPTAIN WATTS.

On the March.

ONE wakes with a start to find one's bearer setting out a meagre "chota haziri" of tea and toast on a chair by the dim light of an evil-smelling lantern. Oh, how cold and dark it is! Surely he has made a mistake and it can't be much past midnight; but on looking at our watch we find it is half-past five, so there is no time to linger. After a hurried meal and a hasty toilet, one lifts up the tent-flap and emerges into a dark chilly world of hurry and bustle—sepoys striking their tents, putting on their accoutrements, or loading baggage on to the carts; servants bustling about and packing master's belongings, syces leading blanket-covered ponies, while the only light available is that from lanterns or burning heaps of straw, which last night served as bedding. The only creatures apparently undisturbed are the mild-eyed oxen, who stand placidly chewing the cud, with every appearance of satisfaction. We make our way to one of the fires round which our fellow-sufferers are standing, muffled up in overcoats, shivering and cursing their luck. At this hour in the morning one does not give or receive a very hearty greeting; everyone feels irritable, with a keen sense of resentment at leaving their warm comfortable beds at such an unreasonable hour.

Stars are beginning to fade, and a growing whiteness in the east shows dawn is not far off, but the earth is still wrapped in a shroud-like mist, the chill of which seems to penetrate one's very bones. The "fall in" sounds, and officers disappear in the gloom to find their respective places, so we might pay a visit to the ambulance tongas to make sure all our patients are comfortably settled.

At last the regiment is paraded, and here comes the Adjutant to report the same to the C.O., who stand aloof absorbed in gloomy reflections, which are not lightly to be disturbed at this hour in the morning. Off goes the advance guard, and soon the regiment moves away on to the road, past the carts and waggons, which are already drawn up in a long line ready to start. It is always wise to keep near the front of the column, when possible, where the air is fresh and free from dust. Oh, the monotony of tramping along in the half light, still chilled and only half awake, with the recollection of many such mornings in the past, and thoughts of many more to come. Gradually the light gets stronger, till up gets a round red sun, whose beams receive a welcome, which, alas, is only short lived, for down in these parts, even in the cold weather, his rays will soon become uncomfortably warm.

We can now see the country we are marching through, not that there is much of interest to catch the eye. We are bored and "fed up" with it, after marching five

hundred miles along the Grand Trunk road; for one day's march is so like another's that we might easily have turned round and marched the wrong way by mistake. The broad straight white dusty road is, for the most part, shaded by fine old trees, amongst which dart and wheel flocks of bright green chattering parrots. On either side nothing but crops dotted with dull dark-green mango groves meet the eye, for in this rich fertile country, between the Ganges and the Jumna, almost every square yard of land is utilized for cultivation. Here are dense patches of dark-green sugar-cane, eight feet or more in height, standing out from the brighter green of wheat or barley, here thick bushes of "dal" bursting into yellow flower, and scattered along the road-side may be seen gaunt castor-oil plants covered with spiky balls.

Now and then a group of buildings and masonry tanks show where an indigo factory stands, but thanks to synthetic production of the dye and a consequent fall in prices, it has to a large extent gone out of cultivation here.

All the crops are now covered with heavy dew, and the early bird must get pretty well soaked to the skin in his pursuit of the succulent worm.

Game here is very scarce, as patches of jungle are few and far between; occasionally the call of a grey partridge may be heard or the plaintive cry of the "sirus," a large crane common in these parts and not molested, for he is a sacred bird; so, too, are the peafowl, which are consequently bold and much in evidence, though occasionally they do appear on the mess table, for necessity knows no law. Where the land is poor, uncultivated and covered with patches of low thorny trees, a herd of black buck may be seen, which tempt, perhaps, one of our keen shikarees to ask permission from the C. O. to leave the line of march; if he is lucky, the mess will benefit. An occasional green pigeon, which is very hard to see in the thick foliaged trees they frequent, completes the list, though one sometimes sees flocks of ducks and geese making their way from the small jheels in which they feed during the night to the broad shallow reaches of the Ganges, which flows at no very great distance from our line of march. A whistle blows, and we make a brief halt of ten minutes to give the men a chance to get their second wind.

Off again, and then after a six miles' tramp the regiment turns off into a grove of mango-trees, while the British officers gather against a convenient bank to await the tonga, in which are our refreshments of sandwiches, biscuits and ginger beer. Life does not seem so sad as we lie with loosened belts in the shade smoking our pipes and reflecting that more than half the march is over, for the distance we cover day by day does not average more than ten or twelve miles. We have marched three hundred miles, taken part in a large parade before an Eastern potentate, and then two days later have set out again to march three hundred miles back. As we have to pay for the transport of our tents, our kit, our mess, and necessary stores, whilst the servants all demand extra wages, a certain amount of grumbling is natural and inevitable, and this reaches a maximum when we are called upon to sham fight along the road for several days, in addition to our ordinary discomforts and annoyances. Well, button up your jackets and buckle your belt, for there goes the whistle and we are off again. Most of us now mount our ponies, feeling we have done enough, for example, by trudging two-thirds of the way on our flat feet. I would rather do twenty miles across country with an object in view than ten miles with a regiment along the Grand Trunk Road.

Soon after starting again we pass through a large village, where the whole of the population, warned of our coming by the vigorous strains of the drums and fifes, turns out to watch our progress, and a following of naked little urchins and mangy pariah dogs soon gathers. Here is a Bunia's shop: observe the proprietor as he squats cross-legged surrounded by heaps of grain and baskets full of queer-looking comestibles, for all the world like a bloated spider waiting in the middle of his web. Dirty, oily and corpulent, his greasy locks surmounted by a little linen cap that was once white, he wastes no money on outward display or riotous living, but grows fat where better men would starve.

Next is a silversmith, grimy and spectacled, who looks up from his little forge, at which he makes rough clumsy bangles and all sorts of primitive jewellery to order, for this and a hole in the floor are still the time-honoured ways of storing wealth in the East. Here is a sweetmeat maker, naked to the waist, stirring large cauldrons of frothing, bubbling, steaming yellow messes, from which he will concoct sweetmeats that, though of dubious cleanliness, are eminently pleasing to the native palate, and form indeed part of his regular dietary. A little further on is a "durzie" busy at work stitching wih an ancient Singer, surrounded by rolls of brightly-patterned cottons and calicoes, for he combines a tailor's and a draper's business.

Turning a corner, we catch a glimpse of frail dusky beauties peering from dim obscurity, loaded with ornaments and clad in gaudy raiment: their "salaams" are rather embarrassing, for theirs is a profession more honoured in the East than in the West. That curious-looking two-storied vehicle with iron-barred sides, which is standing in the local livery stable-yard, is not, as one might imagine, part of a travelling menagerie; it is a camel-cart, which will presently set out on its deliberate way crammed with passengers, to whom cheapness is more important than speed or comfort.

The air is heavy with innumerable smells; the street foul and filthy with all the rotting refuse and garbage of a native bazaar, while on the outskirts of the town are rubbish-heaps unmentionably foul, where lean mangy-coated pariah dogs prowl and dispute their finds with obscene ragged-plumaged carrion birds.

Glad we are to find ourselves once more outside, where the air is fresh and the light glints through the dark-green foliage above. The sun is now getting powerful, so we are glad to see, as we turn off between the white

forts which mark the entrance to our camping-ground, that there are some fairly substantial trees, which give a grateful shade, for an eighty-pound tent in the sun at midday gets uncomfortably hot.

While tents are being unloaded and pitched, we will stroll round to have a look at the wells and the bazaar to see whether the supplies are all right: it requires more experience, however, than we at present possess to be quite sure as to what constitutes good "atta" (flour) or good "ghee" (clarified butter). Unripe fruit must be prohibited, as it upsets the sepoy's inside, while it is as well to make a few inquiries about the health of the neighbouring villages, for plague has been reported in this district, and it may be necessary to put infected villages out of bounds.

By the time we return to camp, things wear a more settled aspect, and all have begun to make themselves comfortable. Many of the men are washing themselves at the well preparatory to their midday meal, while hard by the transport cattle are being watered at a long trough; some of the men are already squatting in front of their litter fires intent on their cooking operations. Here are the cooking-places of the Brahmin double company: each man has had a wash, bared himself to the waist of everything save the sacred thread, and is safely ensconced within a little square he has marked out on the ground, from which he will not emerge till all is finished. Great is the outcry when a pariah dog approaches their sacred enclosures attracted by the smell of hot chupatties and ghee.

We will now make our way to the mess-tent, and soon everyone is busy stowing away food, for we are all hungry and have forgotten by this time our half-way refreshment. After breakfast a smoke, and then off to the hospital tent, where a few uninteresting cases of sore feet, colds or diarrhœa present themselves; if they prove genuine they will be allowed to ride in the ambulance tongas to-morrow, a privilege from which unentitled candidates have to be rigorously excluded. There are only just over half a dozen cases in hospital, but two of them, seriously ill with pneumonia, we shall leave here to-morrow, when we march, for luckily there is a well-equipped civil dispensary; it will be a great relief to get them safely housed, as daily journeys, though unavoidable, are not the thing for men in such a serious condition. Having signed and sent off the daily sick report to the Adjutant, work is finished for the day, and as we leave the tent the portly Sikh "doctor babu" removes his tight belt with a sigh of relief and proposes to spend the rest of the day in comfortable repose.

What's to be done now? Well, there is a school here very eager to challenge the regiment to hockey, so a match is soon arranged, though the headmaster deprecatingly explains that "we have only lately added hockey to our school curriculum." News is also obtained that there is a jheel swarming with birds about six miles off along a kutcha (unmetalled) road. Those who are not hockey enthusiasts arrange to go, and sufficient ekkas (country pony carts) for the party are ordered.

After a change into shooting kit, and a refreshing cup of tea, the four of us who are going are ready to start, and each takes an ekka. The "sahib" sits on one side, his orderly on the other, and the driver sometimes on the little ledge in front and sometimes on the shafts, according as the exigencies of balance demand. Progress is slow; the road is rutty and deep in dust, so our frail craft staggers and sways from side to side like a ship at sea, threatening to overturn and deposit us in the dust. However, in spite of its decrepit appearance and the miserable little pony in the shafts, eventually we arrive at our destination—a couple of nice sheets of water separated by a narrow bush-covered ridge, an ideal place, in fact, but there is not a duck to be seen. We wait till sunset, yet nothing but peewits, with their irritating "did he do it" cry, and snippets are to be seen, and when we leave the only sport has fallen to the Colonel's orderly, who, borrowing his gun, goes on a tour of exploration, from which he returns with a brace of quail, having stalked and slain them with a single cartridge! So many regiments have marched along this road that all the birds have been scared away. As it is, we have had our twelve miles drive, none too enjoyable, for nothing. There is time for half an hour's quiet read in our tents before dinner, when we all meet again, well wrapped up in our overcoats, for it gets very chilly as soon as the sun goes down.

We are somewhat tired of each other's company by this time, and shall be glad to get back to cantonments, for marching every day and no sport is poor fun. Well, there is not much to sit up for, so we say good-night and stroll across to our tent. We quickly undress and get in between the sheets, haunted by the thought of "half-past five on a dark and chilly morning."

Trade Notes.

Spinal Analgesia with Novocain and Strychnine.

In a recent number of the *Clinical Journal* Mr. Canny Ryall described his *technique* for producing spinal analgesia by this combination of drugs, which was introduced by Jonnesco of Bucharest as a means of avoiding the danger of respiratory paralysis. Mr. Ryall found, as a result of experiments, that, whereas respiratory paralysis ensued in dogs after injection of two centigrammes of stovaine alone, six centigrammes or more could be injected in combination with strychnine, without danger.

The Saccharin Corporation Ltd., of 165, Queen Victoria Street, have issued from their Novocain Department, a booklet dealing with this subject, giving the dosage of the two drugs for various ages, and sites of injection.

Guy's Hospital Clubs' Union.

THE FORMATION OF THE CLUBS' UNION, by the amalgamation of the various constituent institutions, took place in the summer of 1891. The objects of the amalgamation are to further the interests of the clubs and societies existing at the hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription (see Clubs' Union Blue Book, p. 13) to the Clubs' Union, any student of the hospital can obtain the privilege of membership of the constituent institutions.

THE GROUND OF THE CLUBS' UNION, which is under the control of the council, is situated close to Honor Oak Park Station, on the London, Brighton and South Coast Railway, and to the Crofton Park Station on the South Eastern and Chatham Railway. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. Return tickets at single fare are issued by the Brighton Railway Company. Under such restrictions as are found necessary by the committees of the several clubs, and are approved by the council of the Clubs' Union, every member of the Union has opportunities of practising and taking part in matches, and in the various sports and games. There is a large pavilion upon the ground, with dressing and lavatory accommodation. Refreshments can be obtained by members of the Union according to the tariff of the Students' Club.

THE HOSPITAL "BLUE."—The "Blues" Committee, consisting of two representatives from each associated club, award "Blues" and "Half-Blues" to members of the following teams:—Rugby Football, Association Football, Cricket, Athletic, Lawn Tennis, Hockey, Gymnastics, and Water Polo, after considering the list of men suggested by the various Clubs' Committees through their delegates. Blues are awarded half-yearly, at the end of each session, so that the Rugby Football team be represented by fifteen Blues, the Association Football by eleven Blues, Cricket by eleven Blues, and Lawn Tennis by six Blues. Blues and Half-Blues are awarded for Athletics, dependent on the recommendation of the Athletic Committee according to the performances at the Inter-Hospital Sports, while there are allotted to the Water Polo Club seven Half-Blues.

CONSTITUENT INSTITUTIONS.

THE CRICKET CLUB.—President: Sir Alfred Fripp, K.C.V.O., C.B., M.S.: Captain: M. M. Munden; Hon. Sec. and Treasurer: C. H. Medlock.

Matches are played throughout the summer session, fixtures being made for three XI.'s. There are both a Senior and Junior Inter-Hospital Cup. Guy's has won the Senior Cup fifteen times since its inauguration in 1882. The Junior Cup has been in existence five seasons. Guy's has won it twice.

Practice matches are held early in May, and all freshmen should put their names on the list. Blues are given to the members of the Cup team, and Half-Blues to some members of the 2nd XI.

The Annual General Meeting will be held in March.

THE FOOTBALL CLUBS.—President: Frederick Taylor, Esq., M.D. Rugby—Captain: H. R. Mullins; Hon. Sec.: G. R. Hind. Captain 2nd XV.: P. J. Monaghan. Captain 3rd XV.: F. C. Hunôt; and a committee of five, one representing each year. Association—Captain: C. Witts. Hon. Sec.: P. S. Humm. Captain 2nd XI.: C. E. Rice. Captain 3rd XI.: A. H. Tilbury; and a committee of five, one representing each year.

The Rugby Football Club has now been in existence for over sixty years. Very little is known of its early history. Among the many well-known players who at one time or another have played for Guy's may be mentioned the following International footballers:—A. W. Pearson, W. W. Pinching, A. H. Jackson, L. Stokes (Captain 1877–8), A. S. Taylor, W. G. Mitchell, A. Allport, H. W. Dudgeon, A. Alcock, H. Lee, H. Archer (England); H. H. Jordan, E. Morgan (Wales); R. Evans (Scotland); F. O. Stokes (Ireland).

The Inter-Hospital Challenge Cup was instituted in 1874, and Guy's had the honour of being the first holders. Since then Guy's has held the Cup twelve times, St. Thomas's ten times, London five times, St. George's three times, St. Bartholomew's twice, and Middlesex and St. Mary's once each. In 1891, Guy's, Middlesex, and St. Thomas's were left in, the ties not being played out.

Last season Guy's regained the Cup. In the first round Westminster scratched to us, and in the semi-final we beat London after a close and interesting game, thus qualifying to meet Middlesex, whom we beat in the final. Our club record was also good.

The 2nd XV. again won the Cup, and with the 3rd XV. had a good season.

This year's fixture list is an improvement on last year's, and we expect to have a very good season, provided the right keenness is shown.

The grand stand has been much enlarged, and as we have most of our matches at home this year, we hope it will be well patronised.

It has been decided to try to run a 4th XV. this year; a few fixtures have been arranged. Trial games will be played in the first week of October. For the benefit of freshmen in particular, we may state that lists will be put up in the Smoke-room, on which intending players should write their names as soon as possible. The officers of the clubs will at all times be very glad to give any information in their power.

The Association Football Club "first saw the light" in 1882, and a high measure of success has rewarded its efforts from its earliest days. Four years later (1886) the Inter-Hospital Challenge Cup (Senior) came into existence, and of the twenty-four occasions it has been competed for, Guy's has "been on top" no fewer than

twelve times, St. Bart.'s being our nearest opponents with five wins. In its very palmiest days, Guy's also won the Surrey Senior Cup, viz., in 1887 and 1889. Last year we wound up a very successful season by defeating London Hospital in the final by 5–0. This is the fourth successive season that Guy's has held the Inter-Hospital Association Challenge Cup. In 1898 the Inter-Hospital Junior "Soccer" Cup was competed for for the first time, and of the eleven finals we have won five. Last season the 2nd XI. reached the final of this competition, but were unable to retain the Cup. This was, to some extent, compensated for by their winning the Surrey Junior Cup for the first time in the history of the Club.

And now another pleasing item—the revival of the 3rd XI., who had a very encouraging season indeed, and in no mean measure contributed towards the successes of the 2nd XI. May such keenness and happy results follow the club during the coming season!

Early in October trial games will be arranged to take place at Honor Oak, more especially for the benefit of "freshmen," and it is to be hoped that no freshman interested in Hospital "Soccer" will hesitate, *for any reason whatsoever*, to avail himself of this golden opportunity of proving his worth on the field, for it is largely on the result of these games that his subsequent inclusion in the team depends. Notices of such trial games will be posted in the Smoking-room of the College. A complete list of the season's fixtures will appear in our next issue. The club has entered for both the Surrey Senior and Junior Cups.

THE LAWN TENNIS CLUB.—President: W. Arbuthnot Lane, Esq., M.S.; Vice-President: J. Fawcett, Esq., M.D.; Captain: H. Chapple; Hon. Sec., R. Curle, and a committee of six students.

The Lawn Tennis Club was founded in 1888. Two teams are run during the season, which starts on May 1st and finishes at the end of July. There are two Inter-Hospital Cups. This year we won the Junior Cup, but the final for the Senior Cup has not been played. A trial game is held early in the season, and tournament singles are played for the Arbuthnot Lane Cup during the season.

THE ATHLETIC CLUB.—President: J. Fawcett, Esq., M.D., F.R.C.P. Hon. Secs. and Treasurers: H. N. Eccles and H. F. Renton, and a committee of eleven. The annual summer meeting is held in June, when the Lucas Challenge Cup is competed for, at the Clubs' Union ground. The team which represents Guy's in the Inter-Hospital Sports is chosen on the results of our sports. Blues and Half-Blues are awarded at the discretion of the committee. There is also a contest between the United Hospitals and Dublin University when possible.

In connection with the Athletic Club there is a Cross-Country Club, which has runs every Saturday, and races with the leading London clubs, and the Universities of Oxford, Cambridge and Dublin. Half-Blues are awarded in the Inter-Hospital Cross-Country race. Full particulars and notices of all club matters are to be found on the colonnade notice-board and in the smoke-room.

THE RIFLE ASSOCIATION.—President: Sir Alfred Fripp, M.S., C.B., K.C.V.O.; Vice-Presidents: G. Newton Pitt, Esq., M.D., L. A. Dunn, Esq., M.S., M. S. Pembrey, Esq., M.D., A. P. Beddard, Esq., M.D., R. P. Rowlands, Esq., M.S.; Capt.: H. J. Henderson; Hon. Sec. and Treasurer: G. A. Blake; Committee: H. L. Attwater, W. E. Wallis, G. B. H. Jones, F. D. Annsley, E. O. Yerbury, and W. Robinson.

This Association, which was founded in 1883, is a constituent unit of the Clubs' Union, and all members of the latter are, *ipso facto*, members of the former, without extra subscription. Any Guy's man not a member of the Clubs' Union can join the Association by an annual payment of five shillings. A Hospital Half-Blue is allowed to members of the team.

The Association is one of those forming the United Hospitals' Rifle Club, so that all Guy's men have the use of the United Hospitals' targets at Bisley, and can compete at the United Hospital Prize Meeting. There are now three Inter-Hospital Cups for teams—the Bisley, the Armitage, and the Lloyd—and one individual—the Arnold— which is competed for at the Annual Meeting. We have not succeeded in winning either of the Cups for two years, though we were only a very few points behind the first place this year.

Altogether, targets were available at Bisley on five Wednesdays in May and June of this year. Sweepstakes, under handicap, are arranged on each day.

There is an annual Guy's Hospital Prize Meeting, which includes a scratch handicap and aggregate competitions, five in all, the Scratch Challenge Cup presented by Dr. Pitt being the most important prize.

Vouchers entitling men to cheap return fares to Brookwood—the Station for Bisley Camp—are issued, and the London and Middlesex Counties' Rifle Association are kind enough to allow us the use of their hut on all hospital shooting days. The Association keeps a rifle which is available for the use of any man not possessing one of his own.

During the past year efforts have been made to start a Miniature Rifle Club in connection with the Association, but it has definitely been arranged that there is no place for one here or at Honor Oak Park.

All men who have ever done any shooting at School, University, etc., are asked to give their names and averages to the Hon. Sec., or to some member of the Committee, before next May. Several members of this year's team will be available for next season, and a good reserve of reliable shots is essential if we are to win back the Cups.

The Annual General Meeting will be held somewhere about the end of October, and it is hoped that all men interested in shooting will endeavour to attend. Notices as to date, time, and place, will be posted in the Smoking-room, and on the board in the colonnade.

THE GOLFING SOCIETY.—President: G. Newton Pitt, M.D. Vice-Presidents: H. C. Cameron, M.B., H. L. Eason, M.D., M.S., C. H. Fagge, M.S., F.R.C.S., J. Fawcett, M.D., A. W. Ormond, F.R.C.S., F. J. Steward, M.S., F.R.C.S. Committee: R. Creasy, R. Curle, M. M. Earle, H. V. Gibbons, W. S. Kidd, F. Morres, F. D. Saner. Hon. Secretary and Treasurer: L. Bromley.

This society was formed in May, 1908, for the purpose of promoting Inter-Hospital Golf, and also to provide local interest by means of competitions, matches, etc. The society is affiliated to the Clubs' Union, and therefore all members of the Union are members of the society. Matches are arranged with other hospitals and clubs. A Monthly Medal Handicap Competition is held on the first Wednesday of each month. Cards and information can be obtained from the Secretary or any of the Committee.

During the year prizes presented by Mr. A. W. Ormond and by Dr. G. Newton Pitt, have been competed for, and have aroused keen interest.

An arrangement has been made by which members of the above society may play on five days in the week—viz., Monday to Friday—at the Ilford Golf Club, on payment of an annual subscription of £1 1s., without entrance fee. Such members may play on Saturdays, Sundays and Bank Holidays at the rate of 2s. 6d. a day.

We are indebted to the committee of the West Essex Golf Club for the following arrangements:—Members of the Guy's Hospital Golfing Society may become five-day members of the West Essex Golf Club on payment of an annual subscription of two guineas, without entrance fee. Such members may play on Saturdays and Sundays on payment of a daily green fee of 2s. 6d. Members of the Society may play at West Essex any day, except Sunday, at a green fee of 2s. 6d. a day. On Sundays the green fee is 5s., unless accompanied by a member of the West Essex Club, when it remains at 2s. 6d. Club Competitions are now played at West Essex.

THE HOCKEY CLUB.—President: F. J. Steward, Esq., M.S., F.R.C.S. Vice-Presidents: A. W. Ormond, Esq., F.R.C.S., C. H. Fagge, Esq., M.S., F.R.C.S. Captain: W. T. Clarke. Vice-Captain: G. Y. Thomson. Hon. Sec. and Treasurer: L. Bromley.

The Club still remains without a ground of its own, but owing to the hospitality of other clubs, matches were arranged for nearly every Wednesday throughout last season.

In the Inter-Hospital Tournament we beat St. Bartholomew's by 1–0, University College by 7–0, and in the final, we beat St. Thomas' by 3–1, thus winning the competition for the third consecutive year, and for the fourth time out of the six times the competition has been in official existence.

The addition of E. P. Poulton to the forward line improved the side considerably. A goalkeeper was secured in M. Pern, who, though not pressed, did admirable service.

It would be a great help if anyone who is interested in hockey would look out for a ground, and let us know about it, as at present we have been unable to obtain a ground. A few dates are vacant in the fixture card for the coming season, so that if anyone hears of teams wanting mid-week matches, will they please communicate with us.

All communications should be made to W. T. Clarke, G. Y. Thomson, or L. Bromley. There will be a hockey meeting, notice of which will be put up in the smoking room. All freshmen should make themselves and their qualifications known.

THE SWIMMING CLUB.—The Guy's Hospital Swimming Club was formed in 1892, under the presidency of Mr. A. D. Fripp. The Inter-hospital Water Polo Cup Competition was instituted in the same year, and Guy's have entered for the Cup every season since, winning the competition six times, and halving it after three drawn matches with St. Thomas's in 1905. Guy's have held the cup for the last three years in succession.

The following are the Officers of the Club:—President: Sir Alfred Fripp, K.C.V.O. Vice-Presidents: C. H. Fagge, Esq., M.S., R. P. Rowlands, Esq., M.S., F. S. Steward, Esq., M.S., J. Lewin Payne, Esq., L.D.S., Graham Marshall, Esq., L.D.S., and T. B. Layton, Esq., M.S. Captain of Water Polo: W. T. Clarke. Captain of Swimming: P. S. Price. Hon. Secretary and Treasurer: A. V. Moberly.

Besides the Cup Competition, there is an annual Inter-hospital Team Race Competition. Last year we were successful in winning both the Cups. We beat London by eight goals to nil in the Water Polo. The Team Race has not been completed yet. Guy's are due to meet London the beginning of next term in the final.

An entertainment is held every year in June, consisting of races, diving, costume race, etc., etc.

Students, by the courtesy of the Matron, are allowed to use the swimming bath in the Nurses' Home on alternate week-days and Sundays. Opportunities for practice, both at polo and racing, are thus abundant.

The Annual Meeting, which all freshmen interested in swimming should attend, will be held early in the new year. Notice will be given on the board in the colonnade.

THE PUPILS' PHYSICAL SOCIETY.—Hon. President: Sir Samuel Wilks, Bart., M.D., LL.D., F.R.S. Hon. Vice-Presidents: J. F. Goodhart, M.D., LL.D.; F. W. Pavy, M.D., F.R.S.; Frederick Taylor, M.D.; G. H. Savage, M.D. Hon. Secretaries: W. M. Mollison, M.C., F.R.C.S.; C. H. Rippmann, M.B.

This flourishing society was founded in 1830, on the plan of the old Physical Society, which existed during the latter part of the eighteenth century at Guy's Hospital.

At the Pupils' Physical Society, which meets each fortnight on alternate Wednesday and Saturday evenings, a paper on some subject, not necessarily of medical interest, may be read by any member, to be followed by

a discussion. "Clinical" and "Pathological" Evenings are devoted to the exhibition and discussion of interesting cases or specimens which may be shown by any member. Members are reminded that in connection with the society the following prizes are offered for competition: The Treasurer's Prize of £5 is given annually, and the subject of the Essay for the ensuing session is to be announced shortly. The society offers a prize of £10 for the best paper read during the session; a prize of £5 to the member who distinguishes himself most in the discussions; and a prize of £5 to the member who exhibits the best specimens of scientific interest during the session.

THE DENTAL SOCIETY.—President: J. E. Spiller, Esq., L.D.S. Hon. Secretary and Treasurer: F. Bocquet Bull.

The object of this Society, which was founded in 1894, is the promotion of interest in Dental subjects, and the discussion of Dental topics. Papers are read before the Society each month, and a prize (value £5) is awarded for the best paper read before the Society during the session. Casual communications are invited at all meetings, and a prize (value £1) is awarded at the end of the session for the best set produced.

One meeting during the session is set apart for the examination and discussion of cases of special interest, the patients being brought up for examination.

The meetings are held every month during the winter session in the Physics Lecture Theatre, adjoining the Conservation Room. The meetings take place at 4 p.m. on the second Friday in the month, and tea is served before the meetings in the Physics Laboratory (adjoining the Physics Theatre) for members attending the meetings. New men are strongly urged to attend and take part in these meetings, which, in the past, have proved instructive as well as interesting.

THE DEBATING SOCIETY.—Vice-Presidents: J. Fawcett, M.D., E. I. Spriggs, M.D., A. W. Ormond, F.R.C.S., M. S. Pembrey, M.D., A. R. Thompson, F.R.C.S. Hon. Secretaries: F. Cook, J. A. Ryle, and a Committee of six students.

The Society has reached its eighteenth year. The subjects for debate are general and afford equal interest to senior and junior men. There is at least one meeting each month, a "Ladies' Night," and an annual dinner. The meetings are held on Saturday evenings, at 8, in the Smoking-room, and the subject for debate is advertised a full week beforehand. The first meeting will be held on October 9th, when the president will take the chair.

THE GUY'S HOSPITAL GAZETTE.—The GAZETTE is published on alternate Saturdays throughout the year, and can be obtained from the Librarian. Each member of the Clubs' Union is entitled to a copy of each issue throughout the year; after five years, when he has become a life member of the Union, he is required to pay an annual subscription to the GAZETTE (and Reports) if he desire to continue taking them.

All Guy's men are invited to contribute to the GAZETTE, and all articles, accompanied by the sender's name, not necessarily for publication, should be placed in the Editor's box in the colonnade at least by the Wednesday preceding the next issue.

THE GUY'S HOSPITAL REPORTS.—Edited by F. J. Steward, M.S., and Herbert French, M.A., M.D.

The Reports are published annually, and each subscriber to the Clubs' Union is entitled to a copy, which he may obtain in the Wills Library from the Librarian. Each volume contains papers by members of the Staff of the Hospital and Medical School upon original work done in the Hospital during the preceding year; it also contains a list of the gentlemen who have been educated at Guy's Hospital, with the appointments they have held during the year, the examinations they have passed, and the prizes and honours they have won. The first volume appeared in 1836; copies of the earlier volumes can be obtained from the Editors. The value of this annual publication is obvious, and every Guy's man is proud of the original papers of its Staff, from those of Addison, Bright, and Hodgkin to those of the present day.

THE CHRISTIAN UNION.—The Christian Union was started in 1849 by Dr. Habershon and Dr. Golding-Bird, who held meetings in their houses for students of Guy's and St. Thomas's Hospitals. Since that time similar institutions have been formed in all the London hospitals.

The Christian Union is now a part of the Student Christian Movement of Great Britain, which, again, is part of a world-wide brotherhood of Christian students, known as the World's Student Christian Federation. This movement was started in 1893, as an outgrowth of the Student Volunteer Missionary Union, which was formed in the previous year through the interest awakened by visits paid to several Universities and Colleges by Messrs. Stanley Smith and C. T. Studd, prior to their departure as missionaries to China, and also by the visits of Messrs. Forman and Wilder, who told of the growth of missionary enthusiasm in the colleges of America. At that time religious societies among students existed in only twenty British Colleges; to-day there are Christian Unions in 121 Colleges and Universities, with a membership of 4,500. The World's Student Christian Federation has a membership of over 103,000 in 40 different countries. Every year a summer camp conference is held at Conishead, with an attendance of about 600. During the Winter Term, conferences are held in London, and the last two years large gatherings of students have been held in the Mansion House and Guildhall.

The objects of the Christian Union are to lead students to become disciples of Jesus Christ, and to promote their spiritual life by regular meetings for prayer and Bible study.

The Missionary Society holds meetings every month.

During the winter term it has been arranged to hold a monthly meeting, at which an address will be given.

Meetings will be held for conversational Bible study. Prayer meetings are held every day. The speakers and time of meeting will be announced later. Hon. Secs., F. D. Berry and H. A. Sanford.

The Students' Club.—Officers till 1910 (March). President: W. Hale White, M.D.; Treasurer: John Fawcett, M.D. Hon. Secretary: H. C. Cameron, M.B.; Hon. Assistant Secretary: T. B. Layton, M.S.; and a committee of eight.

The above named manage the affairs of the Club, a full account of which will be found in the Clubs' Union Blue Book.

United Hospitals' Hare and Hounds.

I should like to inform all freshmen and remind all others of the existence of the United Hospitals' Hare and Hounds. This club has been extant for many years past, and has aroused keen interest and excellent sport at all times.

All runs are made from the "Green Man," Blackheath, where rooms have been lent to us by the Blackheath Harriers, and moreover have been lent to us in perpetuity at no cost to ourselves. Guy's men should, in the coming season, take a special interest in the Club, for we have this year wrested the much-coveted and keenly-contested "Kent Hughes" Challenge Cup, a cup which helps to adorn our smoke-room. We held it last in 1903, and London Hospital will not rest content until they have exhausted every atom of strength in attempting to regain their lost laurel, and I am quite sure Guy's will exert every living sinew to prevent this disaster.

During the whole of this last season Guy's have stood foremost in numbers and quality in the Hospital runs and matches, and there is no reason why they should not continue along the path of excellence, and for one more year at least keep the Challenge Cup in their possession.

All particulars and details can be obtained from the Secretary of the Hare and Hounds.

W. E. LEVINSON, Hon. Sec. and Treas.

London University Officers' Training Corps.

Guy's Hospital is the head-quarters of "B" Section of the medical unit of this corps. Class instruction is given in the hospital, and the drills are held at the R.A.M.C. headquarters at Millbank, within easy reach of the hospital. The first camp of the corps was attended with great success on Salisbury Plain this summer. First year's men desirous of joining or of obtaining information about the corps, should communicate with Mr. Davies-Colley at 24, St. Thomas' Street, as soon as possible.

The Residents' Theatricals' Souvenir, Christmas, 1908.

It will be recollected that about six months ago the Christmas plays of last year and two years previously were issued in book form for the benefit of the Hospital. The committee feel that it is now incumbent upon them to give a short statement of the financial position.

Two hundred and fifty copies were printed, and Messrs. Ash & Co. very kindly agreed, as they did last year, to publish them for £25—a substantial reduction upon cutomary printing rates. Circulars and incidental expenses amounted to another £1, so that the total cost of the venture was £26. Of the copies, 191 have been sold, realizing £23 15s., and two complimentary copies have been given away; 57 copies therefore remain, of which 27 are with Gray at the Porter's Lodge, 11 with the Librarian, and 19 at the Nurses' Office. Also, since the "Ortocure" profits were distributed, eight more copies of this have been sold, realizing £1. The total receipts, therefore, are £24 15s., showing a deficit of £1 5s. This the Committee have paid, realizing that the sale of such publications as this continues, though slowly, for a considerable time, and that there must be many who require copies who have not yet applied for them. The Committee would also point out that of the 250 copies of "Ortocure," only seven now remain unsold, and they are confident that the success of the "Dean's Dilemma" will in time fall no whit behind that of the previous year's production.

From the Gazette's Special Pathologist.

G. E. H., Ramsgate.—This growth is an endothelioma derived from the periacinous lymphatics in the mucous glands occurring in the mouth. These tumours are usually encapsuled, in which case they are not malignant.

H. L., Manchester.—The discharge upon the cover-slips contains abundant pus corpuscles, and very small numbers of Gram-negative cocci of the gonococcus type have been found. As a rule, the cocci have the characteristic intracellular position.

PATHOLOGIST.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Manual of Minor Surgery and Bandaging (Heath). 14th edition. By Bilton Pollard, F.R.C.S. (J. & A. Churchill.) Price 7s 6d. net.

Pye's Surgical Handicraft. 5th edition. Revised and largely re-written by W. H. Clayton-Greene, F.R.C.S. (Bristol: John Wright & Sons.) Price 12s. 6d. net.

These two familiar manuals, which were first published, —the one in 1861, the other in 1884—have seen many changes, and some revolutions, in the subject which they describe. The developments of modern surgery have increased rather than diminished the importance of surgical technique. The books have therefore been very considerably revised and re-written in order to fulfil modern requirements. It is strange to find the most modern methods of diagnosis and treatment in close juxtaposition to pictures and paragraphs almost hoary in their antiquity, such as the diagrams of splints and the inimitable introductory chapter of Heath. Many new illustrations have, however, been added in each case. Among them we welcome a more reasonable diagram of a Hodgen than was the old illustration in the Manual; but the old one, we note, is still inserted for comparison. *Pye's Surgical Handicraft* is, of course, on a somewhat larger scale than Heath, the latter being more suited to the requirements of dressers.

Papers, etc., Received.

X-Ray Examinations for the Physician. By A. C. Jordan, M.D. (Reprinted from *Archives of the Roentgen Ray and Allied Phenomena*, August, 1909.)

As physician in charge of the only X-ray installation in this country devoted entirely to medical diagnostic work, Dr. Jordan is well qualified to write on this subject. The paper before us describes, with illustrations, the various apparatus in use in the Medical Radiography Department at Guy's, and concludes with a selection of typical cases, and the methods to be used in their examination.

Hints on the Feeding and Care of Infants. (National League for Physical Education and Improvement.) Price 1d. each, 1s. per dozen post free.

This card of hints, intended for the instruction of mothers in the feeding and general care of their infants, is the outcome of deliberations between a special sub-committee of the league and Mr. F. E. Fremantle, whose card, very similar to this, was drawn up with the advice of Dr. Newton Pitt, Dr. R. Hutchison of Great Ormond Street Hospital, and the Lady Inspector of Midwives for the County of Herts.

Report of the Departmental Committee appointed to consider the Working of the Midwives Act, 1902. Vol. I., Report and Appendices. (Eyre & Spottiswoode.) Price 8½d.

The committee reports favourably on the general working of the Act, which comes into complete operation on April 1st, 1910. There are, however, a number of details which require settlement; of these, one which is of particular interest to the medical profession is the question of remuneration of medical men summoned on the advice of midwives. In these cases the report remarks that "a secure expectation of payment should be given" to the medical practitioner, and that it should be paid by the poor-law authority.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants.—Messrs. C. H. Mills, E. L. Elliott, A. L. Fitzmaurice, J. L. Johnston, M. A. E. Duvivier, H. Steinbach.

Dressers in the Throat Department.—Messrs. H. R. Bastard, N. A. D. Sharp, C. Witts, W. Ledlie, A. H. G. Burton, F. S. Adams.

Medical Ward Clerks.- Extensions.—Messrs. A. J. McNair, A. Seabrooke, G. Marshall, A. Samuel, A. H. Todd (Dr. Hale White); A. H. Birks, E. W. Blake, J. B. Hance, G. L. Preston, A. C. Jepson (Dr. Pitt); N. Mutch, F. G. Lloyd, N. S. Carruthers, A. J. Fräders-dorff, H. P. Warner (Sir C. Perry); G. W. M. Andrew, H. L. Griffiths, P. J. Monaghan, O. E. Williams, H. Daw (Dr. Shaw). R. C. Poyser, H. N. Eccles, L. M. J. Menage, C. Aldis, A. C. L. D'Arifat, F. Cook, V. Glendining, H. L. Hopkins, T. S. Allen, E. R. Hart, A. Sandison, J. L. M. Symns, J. L. Stewart, E. G. Schlesinger.

Assistant Surgeons' Dressers —Messrs. G. T. Foster-Smith, R. S. de C. Bennett, P. Smith, G. C. Covell, J. M. Joly, C. F. Constant (Mr. Steward); W. S. Lacey, W. E. S. Digby, Jap-Ah-Chit, G. B. H. Jones, W. J. D. Smyth (Mr. Fagge); B. R. Parmiter, L. Milton, T. E. Roberts, H. G. Crawford, W. M. Langdon, S. S. Crosse (Mr. Rowlands); W. S. Hyde, P. J. Watkin, E. G. Reeve, F. Tooth, C. A. R. Gatley, V. A. Luna (Mr. Turner).

Surgical Ward Clerks.—Messrs. M. Scott, T. P. Cole, D. A. Davies, G. W. B. Garrett.

Post-mortem Clerks.—Messrs. G. Y. Thomson, H. W. Doll, W. T. Chaning-Pearce, R. Montgomery, W. E. Williams (October 1st); F. A. Dick (November 16th).

Clerks in the Skin Department.—Messrs. H. P. Warner, N. Mutch.

Aural Surgeon's Dressers.—Messrs. H. W. Heasman, C. Witts, H. I. Shahin.

Births.

BOOKLESS.—On 7th September, at Raeburn, Sawbridgeworth, Herts, the wife of J. Sneed Bookless, M.B., B.S. Lond., of a son.

MUMFORD.—On August 25th, at the Circus, Bath, the wife of Wilfred G. Mumford, M.B. Lond., F.R.C.S. Eng., of a daughter.

STURDY.—On September 1st, at 81, Bolingbroke Grove, Wandsworth Common, S.W., the wife of H. Carlile Sturdy, M.D., of a daughter.

Marriages.

LAYTON—SAMPSON.—On September 4th, at St. Paul's, S. Hampstead, Thomas Bramley Layton, to Edney Eleanor Sampson.

ED.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

October.

Sat. 2. 1st XV. v. London Devonians (Home).
2nd XV. v. African Banks (Away).
1st and 2nd XI.s' Trial Games.

Tues. 5. Final Conjoint Examinations begin.

Thur. 7. Physical Society's Dinner, 6.25 p.m., and Opening Meeting, 8.15.
Messrs. Symonds and Steward's Take-in (Messrs. Crook and Evans).

Sat. 9. 1st XV. v. Catford (Home).
2nd XV. v. Catford "A" (Away).
Debating Society's Opening Meeting, 8 p.m. "That this House calls upon the House of Lords to reject the Budget."

Mon. 11. Clinical Lecture by Sir Cooper Perry (Dermatology), 1.15 p.m.

Thu. 14. Messrs. Lane and Fagge's Take-in (Messrs. Chapple and Lees).

Passim.

WE are asked to remind our readers that the opening meeting of the Physical Society is on Thursday evening next, October 7th, at 8.15 p.m., when Dr. Frederick Taylor will take the chair, and Sir Hector Cameron will deliver an address on "A Plea for the Treatment of Abscess by Lister's Antiseptic Method." The meeting will be preceded by the Annual Dinner of the Society, held in the Students' Club at 6.25 p.m., at which Mr. Cosmo Bonsor will occupy the chair. Tickets may be obtained from the Secretary, Mr. Rippmann, or from any of the Presidents.

MISS SWIFT has written to us to say that she wishes to acknowledge the many kind letters she has received from Old Nurses and others since she resigned the Matronship of the hospital. She would like to have answered each one separately, but has found it impossible to do so.

MR. G. H. K. MACALISTER has been appointed Assistant Bacteriologist, and Mr. W. H. Catto has been appointed to the newly-created post of Junior Assistant Bacteriologist. The great increase in the work of the Bacteriological Department during recent years has necessitated this increase in the Staff.

The following Entrance Scholarships and Certificates have been awarded:—Senior Science Scholarship for University Students.—£50: Trevor Braby Heaton, B.A., Christ Church College, Oxford. Junior Science Scholarships.—£150: Charles Hamilton Gould, Preliminary Science Class, Guy's Hospital, and B.H.S., Christchurch, New Zealand; £60: James York Moore, Preliminary Science Class, Guy's Hospital. Equal Certificates.—Allan Noel Minns, Thetford Grammar School; Cyril Henry Edwards, St. Paul's School, West Kensington, W. Entrance Scholarships in Arts.—£100: Henry Francis Thomas Hogben, Bedford Grammar School, and William Morris Lansdale, St. Olave's and St. Saviour's Grammar School, equal; £50: James Kyle, University Tutorial College.

In our correspondence columns will be found a letter from "R. M. O.," who complains that residents on leaving the hospital receive no "word of recognition for services performed," and "no word of good wishes for the future," from the authorities. Our correspondent writes in somewhat embittered tones, and we cannot believe that many former residents would feel so keenly the lack of formal recognition by the authorities. After all, what would "R. M. O." have? A large majority of us, who are not fortunate enough to hold resident appointments here, must leave the hospital without even the informal farewells of a going-off dinner, or the knowledge that our career will have left its memory in the minds of devoted clerks and dressers. And a formal farewell is very apt to be more embarrassing than gratifying: most of us find it sufficiently saddening to leave the hospital at all, without this added discomfiture.

Our correspondent is more happy in his suggestion than in his complaint. He would like to see certificates granted for work done here on the completion of a senior appointment, which he refers to as an old custom. It is certainly strange that an old house-physician or house-surgeon should possess no tangible proof of his having held the appointment, except, perhaps, a bunch of bed-letters. Some sort of certificate would seem a very simple and suitable memento of the six months spent in the devoted service of the hospital, and, we imagine, would be much more valuable in the eyes of its proud possessor than a good many of the diplomas awarded by examining bodies. Formerly, such certificates were given for dresserships and other work and appointments done here. We have lately had an opportunity of examining some of these old documents. One, for instance, reads: "These are to certify that Mr. —— hath attended the Practice of Surgery as a Dresser to Mr. Cooper," another that "Mr. —— hath likewise with great Care and Diligence attended to Dissections and the making of Preparations as a Difsecting Pupil." One certificate is decorated with some quaint engravings, among which we see a gentleman in classical costume apparently dissecting a sheep with great vigour, while a skeleton hangs in a jaunty attitude against a blackboard decorated with Euclid, Book I., Prop. 47, and a little crowd of amazed sightseers stand a little apart by the open doorway. Yet another, signed by Addison and Babington, is somewhat cautiously worded, as follows:—"This certifies that ——— has been a pupil to the Physicians' Practice of this Hospital for 18 Months, during which time he has had every Opportunity of acquiring a Knowledge of Diseases and the proper Methods of treating them." The cautious use of the word "opportunity" is here balanced by the calm assumption that the methods of treating diseases used here are the "proper methods." In the leisurely and ornamental days to which these old certificates belong, even the ticket of admission to the practice of the hospital was decorated with a quaint engraving of the front quadrangle.

Nurses who complete their period of training, three years or one year as the case may be, receive a certificate to that effect, and there seems no reason why men who hold resident appointments, at any rate, should not be similarly rewarded. Let the departing resident go to the House Committee with that familiar remark of the surgery patient, "Please can I have a sustificate?"

The Residents' Going-off Dinner was held last Thursday evening, and was a great success, and, in point of numbers, was the largest going-off dinner we remember. Nearly seventy, residents and their guests, were present. The business of the evening was disposed of at intervals. The residents elected as their new President another "Willy," Mr. W. W. Pinching, who may safely be trusted to carry out with success the multifarious duties which towards the end of his term of office, at Christmas, will be his. He will have an able lieutenant in Mr. Harold Chapple, who is the new Vice-President. The toast of "the On-coming Residents," Messrs. Crook, Lee, Plumptre, and Wallis, was proposed by Mr. Stott, in a finished little speech, to which Mr. Lee replied; the toast of "the Visitors," by Mr. Ball, whose speech at one time seemed as though it might never finish, so many distinguished visitors were there to honour. Mr. Carlyll, who had come from Shadwell for the occasion, replied for the visitors, and very kindly continued his speech of three months ago. The proceedings were considerably enlivened by the songs of Messrs. Doll, Chapple, Montgomery, Irvine, and Price, and especially (if we may single out one) of Mr. Endean; by the recitations of Mr. Renton, and by the accompaniments of Messrs. Ball and Trethowan. To President Cook, Vice-President Price, and the other off-going residents, Messrs. Perkins, Stott, and Ball, we say good-bye and good luck, but it is satisfactory to know that several of them will still remain among us for a time in an official or unofficial capacity.

"The old order changeth, yielding place to new," and we have again to chronicle a gap in the ring of familiar faces that pass in and out of the hospital. Mr. Henry Taylor has been for many years the friend of all among us who have sought relaxation or change of interest in the sphere of music. For fifteen winters he has been the enthusiastic conductor of the Hospital Choral Society — a gathering which he has watched grow from a small half-dozen who met in the drawing-room of the Matron's house to a vigorous body capable of giving two well-attended concerts every season. Of late years, however, a new set of nurses and men have arrived, who, knowing little or nothing of the past history and ambitions of the Society, have grumbled at the modest fare set before them and requested something bigger. In face of this Mr. Taylor has resigned, and we would like here to record our great appreciation of his manifold services while he has been with us, and our grateful thanks for all that he has done. If we wish the Society in the future the good fortune to secure the leadership of men as painstaking and enthusiastic as Mr. Taylor has been, we feel sure that we are wishing it the best that can befall.

Mr. George Davidson Deeping, M.R.C.S., L.R.C.P., who died recently at Hastings, was an old Guy's man, who qualified from here in 1871. He held the posts of House-Surgeon and R.O. here, and afterwards settled in Southend-on-Sea, where he acquired an extensive practice. He was also an Admiralty Surgeon and Consulting Surgeon to the Victoria Hospital at Southend. He took an active part in politics in the Conservative cause, and was a J.P. for the County of Essex. He retired from active practice in 1900 and settled in Hastings, where his son, Mr. Warwick Deeping, the novelist, is in practice.

From the Gazette's Special Pathologist.

G. M. J., Alton.—This growth is a carcinoma of the breast of the scirrhus type. It is composed of alveoli of large epithelial cells in a dense fibrous stroma.

J. W. M. P., Teignmouth.—This is, without doubt, a malignant growth, but considering the long history cannot be so in a very high degree. It is best termed a "Melanoma," for although its structure is now that of a sarcoma, it probably had an endothelial origin.

G. F. S., Kennington.—This lung is in a condition of tuberculous broncho-pneumonia, showing early multiple small caseous foci with giant cell systems at their periphery. The nerves show very little gross change, but here and there small tracts can be seen in which the nerve fibres are atrophied and replaced by fibrillated and cellular connective tissue. There is no active inflammatory change in them.

PATHOLOGIST.

Semmelweis.*

In the history of medicine there are few stories more interesting, and at the same time more sad, than this of the young Hungarian who dared to beard the dogmatists of his day, and won fame and honour after his death when his life's work had brought him insult and contumely, vituperation and abuse. To most of us Semmelweis is but a name dimly remembered in the list of the great. There is no instrument called after him, no method associated with his name; he invented no new stain, described no bacillus, wrote nothing about the causation of cardiac bruits or in explanation of the inexplicable. He was merely an observer, acute and discerning, who struggled for what he held to be truth, and failed to induce the majority of his contemporaries to believe that he had found the light. Now, at last, he has come into his own. His statue stands in his birthplace, and his collected works have been deemed worthy of issue by a State. Formerly he was merely a martyr of science; now he is a hero of medicine. Late in the day, but not less worthy of attention, is Sir William Sinclair's tribute to his memory, and to those of us who are unacquainted with the fuller biographies of Hegar and von Waldheim, this book, an attempt to describe his life and work, should prove of absorbing interest.

Ignaz Phillip Semmelweis was born at Buda in July, 1818, the fourth son of a prosperous shopkeeper. He received an indifferent education, and in due course, fortified by a thorough knowledge of Latin, went to Vienna and studied law. Becoming enamoured of medicine, however, he threw up his law studies, and became a medical student, qualifying in 1844 as *doctor medicinæ* with a thesis entitled *De vita plantarum*. He then became assistant at the Obstetrical Clinic at Vienna, at that time second to none in Europe, both for its teaching and for its mortality. Present-day students at Vienna will find little trace of the old clinic in the magnificent — yet in some points unsatisfactory—new buildings of green and white where, under the guidance of Professors Schautz and von Rosthom (the latter recently deceased), young volunteer assistants carry out the prophylaxis that Semmelweis insisted on as a matter of routine. In his day things were very different. The old clinic was a death trap; seventy per cent. of the women who entered it left in the old bier with its red crossed pall, a replica of which is still in use for carrying the dead from the "dying room" to the post-mortem hall. Puerperal fever was the fear and terror of that, as of every existing clinic, and the teachers of the day were rich and fertile in explaining why it was so prevalent. But Semmelweis was a revolutionaire, one of the type Whitman loved to be the poet laureate of, disinclined to take the dogma of the text-books at the value of the teachers. Like Herophilus and Paulus Æginetus, he groped to the hidden root of things, and in grappling with doubt made a discovery.

Properly, Dr. Sinclair makes Semmelweis tell his own story, quoting judiciously from the jumbling autobiographical jottings that appear in the Etiologie. Follow for a few moments the straightforward recital of the initial doubt, the shadow, as old Polycarp of Smyrna would have phrased it, that revealed to him the light beyond. "An opinion prevailed that the very building, in which so many thousands of women had gone through parturition and the puerperium, had been attacked with puerperal fever and had died, must be so pestilential that it was not to be wondered at if puerperal fever got the upper hand and was perennial. If that were really the cause of puerperal fever, then the Second Division ought to have had a higher mortality than the First, because even in Boër's time frightful epidemics had raged in what is now the Second Division, and this before even the foundations of the First Division had been laid. The evil reputation of the institution was such that the women entered it with fear, and that this dread was declared to be a cause why (*sic*) the patients sickened and died."

Thus far Dr. Sinclair. Now for a quotation from the Etiologie:—

> "That they were afraid of the First Division there was abundant evidence. Many heartrending scenes occurred when patients found out that they had entered the First Division by mistake. They knelt down, wrung their hands, and begged that they might be discharged. Lying-in patients with uncountable pulse, meteoric abdomen, and dry tongue, only a few hours before their death, would protest that they really were quite well in order to avoid medical treatment, for they believed that the doctor's interference was always the precursor of death. In spite of all this, I could not convince myself that fear was in any measure a factor in producing the great mortality in the First Division, because as physician I could not see how fear, a psychic condition, could produce such anatomical changes as those seen in

* *Semmelweis*: His Life and his Doctrine. By Sir Wm. Sinclair, M.D. (Manchester University Press. Sherratt and Hughes, London.) 7s. 6d. net.

puerperal fever. Besides, it must have taken a long time of raised mortality before it could become an impression among the people that the death-rate in one division were persistently very much higher than in the other. Fear does not explain the beginning of the mortality."

Then, in detail, he traverses all the other study-made theories of the etiology. The points of his evidence cannot be adequately summarised here; besides, they are sufficiently well known to all students of medicine, and those who wish to read them *in extenso* may be referred to Dr. Sinclair's able epitome. So on, step by step, brilliantly inductive at times, convincingly deductive at others. It is difficult to find a case more ably stated from clinical facts than this brief that Semmelweis worked up in the Etiologie. At times it reminds one of the scintillating methods that Spinoza employs in the "Ethics." But it was a laborious process, this work of discovery, and the inspiration that was to leaven the whole came only after much thought and patient observation had paved the way. Finally it came in a flash. The Marquis day-dreaming before his tea kettle, Newton and the apple, Morton and his bad tooth, the Manchester calico printer and the parsley leaf, Nobel and the bottle of nitroglycerin overturned on the sawdust—they must all give place, in dramatic intensity, to Semmelweis and the scalpel wound. Let him tell the tale, again, in his own fashion:—

> On the 20th of March of the same year (1847), a few hours after my return from Vienna, I resumed with renewed energies the duties of the post of assistant in the First Obstetric Clinic, but I was soon shocked by the sad news that Professor Kolletschka, whom I held in the highest honour, had died in the meantime. . . . As professor of Medical Jurisprudence, Kolletschka often performed post-mortem examinations in medico-legal cases with the assistance of his students. In the course of one such examination he received a punctured wound of the finger from the knife of one of the pupils. . . . He became affected with lymphangitis, phlebitis in the same upper extremity, and died from pleurisy, pericarditis, peritonitis, and meningitis, and a few days before his death metastasis occurred in one of his eyes.
>
> In the excited condition in which I then was, it rushed into my mind with irresistible clearness that the disease from which Kolletschka had died was identical with that from which I had seen so many hundreds of lying-in women die. The puerperæ also died from phlebitis, lymphangitis, peritonitis, pleuritis, meningitis, and in them also metastases sometimes occurred. Day and night the vision of Kolletschka's malady haunted me, and with ever-increasing conviction I recognised the identity of the disease from which he died with the malady which I had observed to carry off so many lying-in women. . . . . The cause of the fatal illness of Kolletschka was well known; it was the wound produced by a dissecting scalpel which was foul with cadaveric particles. It was not the wound, but the wound rendered unclean by cadaveric particles which had produced the fatal result.

Reasoning thus, the inevitable conclusion "puerperal fever, which is analogous to pyæmia, is produced by the same, or a similar, infection, cadaveric poison," was forced upon him. Get rid of the poison and you will get rid of the disease. Be clean and you will save these women. It is one of the most amazing facts in the whole history of medicine that it was left for Semmelweis to resurrect the antiseptic methods of Trotula di Rugieri, as it was left for Lister to resurrect the methods of Semmelweis, and for Reclus the even prior asepsis of Hippocrates. Nevertheless these are facts, and it is also a fact, strange as it may appear to those who have a logical mind, that Semmelweis tried to strengthen his powerful lines of argument by experiments on animals. Later on, it is satisfactory to note, he saw the futility of piling Pelion on Ossa to prove that a mountain was higher than a mole-hill, and, rather contemptuously, refused the offer of the Academy that he should continue his experiments. He was certainly no anti-vivisectionist, but his mind was too severely logical for him to need a rabbit's death to prove a demonstrable clinical fact. Liebig had already shown the antiseptic powers of chloride of lime solutions, and the young assistant availed himself of this medium to cleanse his hands and those of his pupils from cadaveric particles. Under the chloride régime the results at the clinic were rapidly improved, and to unprejudiced observers like Routh, Semmelweis' new theory was proving itself all along the line.

Then followed a time of disillusion and disappointment—the time that, were Semmelweis canonised, would be styled his "agony." To one convert there arose a hundred opponents, and, as is usual in controversies in which dogmatists participate, insult was deemed equal to argument, personal attack to impartial examination. The egregious Klein, the solid and already influential Virchow, the vituperative Scanzoni, the orderly Simpson—(surely he, with memories of his own heated fight against the dogmatists, might have been lenient)—the whole gamut of gynæcologists of standing or no standing combined to the attack. A bright light shines

here and there, and brightest twinkles that of Dr. Routh, the Englishman who came, saw and believed, and who interested the Obstetrical Society in the new theory. But Semmelweis was getting despondent. Hounded—there is no other word for it—out of Vienna, he went to Pest, and for once the prophet was a prince in his own land. To the eternal honour of Pest it received him, trifled with him at first, but finally gave him its best, the chair of gynæcology at his old university. Here he lived and worked, an obscure planet outside the milky way of the mediocrities. Here he sickened, became mad, they said. As a lunatic they carried him to Vienna, where he died on the 13th of August, 1865, of pyæmia—the disease, as Dr. Sinclair remarks, to the prevention of which his whole professional life had been devoted. At the autopsy extensive organic disease of the brain was discovered. The body was buried in Vienna, but in 1891 the remains were exhumed and conveyed to Buda Pest.

A sad story, a horrible even, this of Semmelweis and his agony, and the saddest reflection is that it is not a solitary page in the history of medicine. Talbot's truism to Elizabeth,

"*Nicht Stimmenmehrheit* is *des Rechtes Probe*,"

is apt to be forgotten by us of the profession, prone to look upon ourselves as the veritable *Verein der menschlichen geschlachter*, and write the damnatory clause large against whomsoever should dare to defy our beloved universalities. We count ourselves tolerant, but it is a tolerance of contemptuous complacency, not of philosophic calmness that courts doubt, prizing it, as Rabbi Ben Ezra did, since it is the touch-streak of the advancing mind. There are theories to-day and dogmas held on assumptions as flimsy and as unproven as the miasmic theory of puerperal fever in the days of Semmelweis, and yet they are buttressed with vast authority, and the man who would stand advocate against them would have a horrible time at the hands of his colleagues. It is, perhaps, fortunate that the revolutionaires in medicine have been singularly self-satisfied men who did not care a twopenny damn about what their colleagues said of them after the initial gall had been tasted. So Semmelweis, so Mundinus and Vesalius, the defiant young Hollander who had the grit not to grovel before Galen, so Laënnec and Skoda, so—beg pardon, I had almost said Paracelsus and Hahnemann. They agreed with Talbot, and held, with Seneca, that truth is a commodity of practical value, and things that are practical win over things that are theoretical. Only the fight takes a long time. Wedded to the "experimental method," we moderns have lost sight of the truth enshrined in the Celsian aphorism, "*Neque interesse an nunc iam pleraque explorata sint, si a consilio tamen coeperunt.*" We demand proof, practical, technical, denying wisdom to him who logically climbs upward, while granting the highest effulgence of perspicuity to the fool that deducts from an experiment. Skoda was sent to an asylum because he "killed patients with his infernal percussing," Laënnec publicly insulted because he "made a god of a wooden tube." But their views prevailed, and to-day their heresies are creeds to most of the faithful. No creed, however, is stationary. The Athenasian itself is a product of theological evolution, and there are signs that it, too, is to be further "evolved." Stasis, like a vacuum, is an abhorrence to Nature, to Providence, to whatever you please, and progress is the motto in every science, every art, every profession. Sometimes, it is true, the progression is backwards, and the admission is no contradiction in terms. Can any thoughtful person acquainted with the history of medicine deny that we are approaching nearer every day to the Galenical standpoint of sixteen hundred years ago? These are reflections that we who are "staking our lives to be lost at any moment," scientific and professional lives as well as physical ones, should be only too willing to admit, and, admitting, to agree also with their logical conclusions.

Sir William Sinclair's work, as that of an enthusiast, is altogether admirable. For that very reason, perhaps, it lacks the force and clearness, the impartiality and the finish of diction, that we would have wished to see in it. Passages such as this—

> "A doctrine maintained all this time, although apparently inconsistent with the theory of an intimate relationship with erysipelas, was that puerperal fever was a species of disease *sui generis*, independent as an entity, but the most variable in its phenomena owing to fortuitous circumstances."

are slovenly to say the least, and more worthy of the ephemeral publicity of a paper read at an associational meeting than of so permanent a work as this. Also we must object most cordially to such phrases as "the cause . . . why," "adult woman," "traumatism," etc.

The grammarian, we are fully aware, is like the law, an ass. Dr. Sinclair has as much right to be singular in his usè of words as Carlyle or Mr. G. B. Shaw, and we do not wish to lay undue stress on these things. But we have a graver criticism to make in charging Dr. Sinclair

with implied unfairness and want of sympathy to Holmes, whose share in the great work only an enthusiast could afford to minimise as Dr. Sinclair does. Doubtless that share was not so great as the late Dr. Cullingworth wished us to believe, but it is scarcely just to say that it was one of factitious importance—even though it is not alluded to by von Siebold or Herrgott. Few of us, for instance, will agree in the following expression of opinion. Referring to Holmes' controversy with Meigs, and the dignified: "No man makes a quarrel with me over the counterpane that covers a mother with her new-born infant," Dr. Sinclair remarks: "Surely the controversy was too desperately serious for such refined sentimentality." So might a worthy historian say in the aftertime of Marie Antoinette's grand rejoinder to the infamous interrogatory of Hébert—"Surely her situation was too desperately serious for such refined sentimentality!" Was it worth while with the hammer of Semmelweis' fame to crush the satin flounces of the Autocrat's dummy reputation?

C. L. L.

Remarks on Dr. Hale White's "Common Affections of the Liver."

By GRAHAM SIMPSON.

Proofs are not wanting of Dr. Hale White's ability as a writer; he can make even Materia Medica interesting. His latest book, "Common Affections of the Liver," interested me so much that, after reading it from cover to cover, I made up my mind to look over my records of liver operations so that I might see how far they bore out the author's statements. I fear my "few remarks" have developed into a rather lengthy criticism.

Cirrhosis of the Liver.—From a surgical point of view, this is the most interesting chapter. The account of the pathology of this disease is extremely clear and convincing; every Guy's man knows that Dr. Hale White has views of his own on the causation of the ascites in cirrhosis, and his theory of the toxic origin of the fluid is important not only to the pathologist, but even more so to the surgeon. If the presence of free fluid in the abdominal cavity is caused by toxins circulating in the blood, and not by pressure on the portal vein, the operation of epiplopexy cannot justify its existence.

My own experience of this operation has been very unfavourable; after looking up my cases, I sympathised with Gibbon, who, on completing the "Decline and Fall," parted from his labours with "a sober melancholy."

I have on two occasions opened the abdomen for ascites from alcoholic cirrhosis; in both cases the liver was rubbed with gauze and the omentum sutured into the abdominal wall; in both cases the patient did well until the fourth day, when drowsiness and vomiting set in, with rapid pulse and respiration, and in a few hours the patients died in a state of coma.

I thought these symptoms were those of failure of the functions of the liver, and that such cases might be justly labelled "Hepatic Bankruptcy."

These two cases support Dr. Hale White's contention that the ascites of cirrhosis is a sign that the patient is in an extremely dangerous state; the operation, which is simple and would be free from risk in an ordinary person, appeared to be too much for these patients with damaged liver function.

On the other hand, I once assisted one of my colleagues at a laparotomy for what was thought to be an ovarian cyst; no cyst was found, but the smallest hobnail liver that I have seen; the surgeon was not an advocate of the Talma-Morison operation, so all that was done was to let out the fluid and close the abdomen. In this case I certainly did not observe any chronic peritonitis, yet the patient made an excellent recovery, the fluid never returned, and the woman lived for another three and a half years, and died of heart failure.

So many cases have been recorded by careful observers in which this operation has been followed by freedom from ascites for several years, in spite of the absence of chronic peritonitis, that I think there must be two classes of ascites from cirrhosis; one due to toxæmia, and the other to portal obstruction. I wish Dr. Hale White would tell us how to distinguish the one from the other; personally, I shall not operate again on cases of cirrhosis who have a tinge of jaundice and a dry tongue.

The only other case of ascites from cirrhosis I have operated on was that of a child aged three: she was sent in with a diagnosis of tubercular peritonitis. I opened the abdomen, found no tubercles nor any sign of peritonitis, but a much enlarged liver; its surface was finely granular and its colour unusually pale. I concluded that this was a case of congenital syphilis and did an epiplopexy; the child was discharged from the hospital, but the fluid returned, the

child wasted, and death occurred within a year of the operation.

I do not think the operation is to blame for these rather depressing results, but I feel that I have been unfortunate in the selection of my cases. I believe that it is worth while sometimes to open the abdomen on the chance of the diagnosis being wrong. In at least three cases in which I have been asked to operate for ascites thought to be cirrhotic, laparotomy has proved to be a curative measure; twice I found the ascites was caused by the presence of proliferating ovarian cysts; in each case the extirpation of these restored the patient to health, and one of them is alive and well two years later.

A third case in which I was asked to operate proved to be a fine example of

Perihepatitis.—This was a man, aged 38, who gave a history of abdominal swelling for nine months and acknowledged an alcoholic career. The presence of a large amount of albumen in his urine made me suspect the true state of affairs. Laparotomy showed a liver enlarged to three inches below the costal margin, with a rounded edge, not very hard, and covered with a thick white capsule; this capsule was absent on those parts of the liver which lay in contact with other organs, such as the pylorus and the right kidney. Not only was the liver affected, but the peritoneum in the upper right quadrant of the abdomen was thickened in a similar manner. This patient recovered and is now doing full work; the fluid has not returned, and he has put on a stone and a half in weight; there is still, however, a large quantity of albumen in the urine. It is now three years since he was operated on. In this case I did an epiplopexy, though from what Dr. Hale White says I believe this was unnecessary; the fluid is due to peritonitis and not to portal obstruction.

Hydatid disease.—The author's description of this affection is one of the best things in the book, particularly that part which deals with the life history of the Tænia Echinococcus; many of the accounts I have read have left me in a state of what Mark Twain calls "luminous intellectual fog."

I was surprised to find the statement that the hydatid thrill is of little use in diagnosis. I own that I have seen an assistant surgeon at one of the large London hospitals demonstrate the thrill in a case which, at the operation, turned out to be a liver full of calcified gummata. I think he was prejudiced by a note in the report that the patient was a picker of watercress. I have only twice felt the thrill, but in each case I thought it was something quite distinctive. I know of a former house-physician of Dr. Hale White's who noticed a thrill in a case diagnosed as abscess of the liver; he bet a sovereign it would turn out to be hydatids, and won his money. In future I shall percuss my hydroceles, and see if it is true that you can get this thrill in any cyst.*

I have given up draining these cysts, and now always enucleate them and then pucker up the fibrous capsule and close the abdomen. I have lately seen a doctor's daughter, aged five, who had a greatly enlarged liver; she was wasted and looked very ill, and it was thought that the enlargement was due to sarcoma. I urged exploration in case the diagnosis should be wrong, and was rewarded by finding four large hydatid cysts; after they were enucleated there seemed to be hardly any liver substance left, but she made a splendid recovery, and is now putting on weight.

Out of five cysts that I have operated on, no less than four were situated on the under-surface of the liver.

* With regard to Mr. Graham Simpson's criticism about the hydatid thrill, the exact quotation from Dr. Hale White's book is as follows:—"This sign is of little use, for it is very rarely obtained, and, further, it may be felt over any tense collection of fluid; but as hardly any collections of tense fluid, except hydatid cysts, occur in the liver, when obtained over this organ it is very considerable evidence of hydatid" (p. 268). Our readers will thus see that the sign is, when present, of considerable value in the diagnosis of hydatid.—Ed. G. H. G.

Papers by Guy's Men.

J. M. Fortescue-Brickdale, M.A., M.D. Oxon.: Sleep and the Modern Hypnotics.—*The Bristol Medico-Chirurgical Journal*, September, 1909.

H. T. Hicks, F.R.C.S. Eng.: A Case of Chorion-epithelioma Developing in connection with the Birth of a Living Child.—*The Journal of Obstetrics and Gynæcology*, September, 1909.

R. D. Mothersole, M.D., M.S. Lond., F.R.C.S. Eng.: A Case of Gangrenous Femoral Hernia with Secondary Resection of Bowel and End-to-End Anastomosis; Recovery.—*The Lancet*, 18th September, 1909.

D. W. Samways, M.D. Camb., D.Sc. Lond., M.R.C.P.: Misconceptions Concerning the Riviera.—*British Medical Journal*. 25th September, 1909.

Some Surgical Aspects of Typhoid Fever.

CLINICAL LECTURE BY Mr. P. TURNER.

Gentlemen,—I have recently had occasion to operate on two cases which had been diagnosed as typhoid fever, the diagnosis in each case proving to be erroneous. The first case was that of a woman, aged 23, who was admitted into Clinical under Dr. Fawcett for fever and general malaise. In the previous history of the patient there was one fact of importance. When at school she had a discharge from the right ear, and had been deaf in that ear ever since; there had, however, been no discharge for many years. As regards the history of the disease for which she was admitted, I will read what Mr. Allan says in his report: "The patient first felt poorly a fortnight ago, suffering from headache and feeling weak, and unable to go to work. However, she continued at work until a week ago when she was compelled to give it up. She was out of doors on Saturday, April 3rd, but on the following day felt so ill that she had to stay in bed. On the Tuesday she had a shivering fit and vomited, and was then seen by a doctor, sent to the hospital and admitted into Clinical." Thus, with the gradual onset of the symptoms and the feeling of languor and illness, we have almost a typical history of the onset of typhoid fever. A rigor is, however, unusual in this disease. On admission, the spleen could not be felt, but there was some gurgling over the right iliac fossa, and some doubtful typhoid spots were observed. On these grounds a diagnosis of typhoid fever was made. A Widal reaction was tried with, however, a negative result. About a week after admission the patient complained of pain in the neck just below the right mastoid process, and two days later a swelling appeared behind the angle of the jaw. The swelling was at first thought to be due to an enlargement of the parotid gland, but knowing her previous history we wondered whether there could be any connection between this and her old ear trouble. There was, however, no evidence of any acute mischief on examination of the ear, and there was no tenderness or swelling over the mastoid process. The pain and tenderness increased, and on the following day it was decided to explore. At the operation it was found that several of the deep cervical glands were acutely inflamed and that the internal jugular vein was thrombosed. I then proceeded to open the mastoid antrum, within which was a considerable quantity—about ʒj—of pus. As we are discussing this case only as regards the diagnosis, I will give the treatment and subsequent history very briefly. The lateral sinus was opened, scraped, and a small extradural abscess was drained. Later on, pain and swelling appeared on the opposite side, and the left antrum was also opened. The patient eventually died with suppurative meningitis.

I saw the second patient—a woman, aged 22—only four days ago. She was admitted to Clinical on June 22. The history was that six weeks ago she had headache and cough. After being ill for a week or so the symptoms more or less cleared up, but on May 25th the same symptoms had returned; the temperature was raised, and there was a certain amount of abdominal pain. She was seen by a doctor, who watched her for a few days, and then diagnosed typhoid fever. At the Brook Hospital, where she was taken, it was found that the abdomen was soft and full, and the spleen palpable, but there was no particular tenderness and no typhoid spots could be seen. A Widal reaction was taken and was negative. On June 18th she vomited, and this continued for three days. On the 19th, as the bowels had not acted, two enemata were administered, without any result. She was then brought to Guy's, and Mr. Targett, on making vaginal and rectal examinations, found in the pelvis two tender lumps on each side of the fornix. His diagnosis—and he was supported by the opinion of another surgeon—was that she was suffering from tuberculous peritonitis. On the next day, the vomiting was definitely fæcal. There was visible peristalsis, and the patient, obviously suffering from acute intestinal obstruction, was sent down to Clinical for operation. In the pelvis there were numerous adhesions, kinking and obstructing the last two feet or so of the ileum. It was a difficult matter to separate all these bands and adhesions, but eventually the obstruction was relieved. The patient, however, never recovered from the shock of the operation and died a few hours afterwards. Thus we have here two cases thought to be typhoid fever, and for a time treated as such, which turned out not to be typhoid at all.

Typhoid fever is a disease which is of very great interest indeed from the surgical point of view. We may consider it under three heads:—(1) Diagnosis, (2) Surgical complications, (3) Surgical sequelæ. In discussing difficulties in diagnosis, it is my intention to lay stress only

upon those diseases which are more or less surgical, and which are very easily mistaken for typhoid fever.

1. Suppuration of the middle ear and its complications. The chief difficulty in making a distinction in this case is that in the course of typhoid fever one may get suppuration in the middle ear. Even in the case that I have mentioned, we were by no means certain that the patient might not have had typhoid fever after all, and that the mastoid disease was really a complication of the fever. This makes the diagnosis a matter of difficulty. The patient has a vague illness, pyrexia, and the discharge from the ear. Is one dealing with a case of typhoid fever with the discharge from the ear as a complication, or is the case essentially one of middle ear disease with possibly some complication? How are we to distinguish between the two? Well, one has to go into the history of the case—the history of any preceding ear disease—and one also gets assistance from the Widal reaction. I may remind you that in each of the cases I quoted the Widal reaction was tried and was negative. This furnishes, therefore, very good assistance in making the diagnosis.

2. There is another disease which may be confused with typhoid, namely, meningitis, either suppurative or tuberculous. Suppurative meningitis will probably be secondary to disease of the middle ear. Sometimes in typhoid fever we get extremely acute headaches, and even convulsions, while optic neuritis may be found; in short, the cerebral symptoms may be so marked that one suspects meningitis, possibly tuberculous, possibly suppurative. The distinction between typhoid and this condition is sometimes very hard to make out. But in meningitis the abdomen is generally retracted, and in typhoid fever it is distended. Moreover, although confusion may occur at first, one sooner or later finds that something distinctive of meningitis has developed, such as paralysis, a squint, or optic neuritis, and then, of course, again we have recourse to the Widal reaction.

3. A third condition from which typhoid fever sometimes has to be diagnosed, and which is more directly surgical than tubercular meningitis, is appendicitis. The abdominal pain and distension will, however, in the latter disease become localised in the right iliac fossa.

4. Deep-seated suppuration, especially abdominal, may be mistaken for typhoid fever. Let me give you two instances in which this difficulty occurred. One was a female patient, admitted into the medical wards, with a fairly typical history of typhoid, but when the blood was examined a marked leucocytosis was present. Ultimately it was found that the patient had pyosalpinx, which was not obvious at all from abdominal examination, and was only discovered on rectal examination. The other patient was a man, who was first seen at Surgical Outpatients. He had a high temperature, had been ill for some time, and showed some doubtful spots, which might be those of typhoid. He was admitted as a case of typhoid fever, and at the end of ten days, as his bowels had not acted for two or three days, an enema was given. An ischio-rectal abscess, which had been the cause of his symptoms, was opened by the passage of the tube.

5. Tuberculous peritonitis may also be confused with typhoid fever. The onset of both these diseases is usually gradual and the symptoms at first are vague. In addition to this, one commonly gets pyrexia, diarrhœa, and some abdominal distension. Thus the symptoms of the two diseases may have a close resemblance, although the distinction is usually marked after a time. In tuberculous peritonitis fluid may be exuded and found in the peritoneal cavity, or abdominal palpation may reveal the presence of one or more lumps, due to the coils of the intestines being matted together by the tuberculous process.

6. Sometimes, on the other hand, a patient may be admitted into the surgical wards apparently suffering from some other disease, but really, as time proves, suffering from typhoid fever. I cannot recall details of any such cases, but this specimen from the museum, which shows typhoid ulceration with perforation, illustrates very well what I mean. It came from a patient who was admitted for stricture of the urethra. He was about to be discharged when he suddenly collapsed and died within a few hours. Typhoid ulceration of the intestine was found at the autopsy. No doubt he had been suffering from typhoid fever during his stay in the hospital, and it had not been recognised. If he had a high temperature it was probably put down to some renal trouble or possibly to "catheter fever."

There are certain complications of typhoid fever which are essentially surgical.

The first is perforation. It is quite a common thing to find the typhoid ulcer perforate. Roughly speaking, it is estimated that nearly one-third of the fatal cases of typhoid show a perforation. Perforation also takes place in an appreciable proportion if we take all cases of typhoid. It happens in about three per cent.

of the whole. When it does occur it is an exceedingly serious event. Fæces escape through the perforation, and a very acute peritonitis is set up. Any treatment which can be adopted under such circumstances must of necessity be surgical. Now there are several reasons why perforation is so very fatal. In the first place, the perforation occurs very frequently without any special symptoms. I suppose that the patient may be so ill from the typhoid fever that the perforation of an ulcer may set up no fresh symptoms. At any rate, it is not an uncommon thing to find perforation which has not been suspected during life; in other words, the condition is not diagnosed, and the perforation is only found at the post-mortem examination. In other cases the perforation is only diagnosed because there is a much greater distension of the abdomen and the patient becomes more collapsed; in other words, what is diagnosed is that which has resulted from the perforation rather than the occurrence of the perforation, and the diagnosis is made too late for any satisfactory surgical treatment.

The next question is the time in which the perforation is likely to occur. It nearly always occurs after the second week, though cases have been recorded in which perforation has taken place earlier than that. It must be remembered, too, as a fact of great importance, that it may take place during convalescence. If the perforation takes place at the height of a disease when the symptoms are acute, the prognosis is exceedingly bad, but when, as sometimes happens, perforation occurs during a very mild attack, or when the patient is convalescent, the possibility of surgical treatment is much more hopeful.

The usual site of perforation is of great importance, because, owing to the serious condition of the patient, it is necessary to operate as quickly as possible. The perforation nearly always occurs in about the lower foot of the ileum—at any rate in the lower part of the ileum. It may, indeed, occur elsewhere, even in the appendix, the cæcum, or colon. But the matter is much simplified if one keeps in mind the place of its most frequent occurrence. The procedure is to make an incision through the sheath of the right rectus upon the abdomen, and bring the lower part of the ileum outside and suture the perforation. In typhoid the intestine is, however, often so soft that stitches easily tear through. The only thing to do in that case is to bring the coil outside, and to leave it outside. In some cases the piece of intestine has been excised, but this is hardly likely to be successful.

Peritonitis may occur as a complication of typhoid fever from other causes than a perforation. Apparently in some cases there is no perforation, and nothing that one can see to account for the peritonitis, which is probably due to an extension of the inflammatory process through the wall of the intestine.

Another cause of peritonitis is the breaking down and rupture of the mesenteric glands. One may also have peritonitis set up by ulceration from the gall bladder. This is a rare complication, but I have here a specimen from the museum in which the gall bladder was acutely inflamed, perforated, and set up a fatal peritonitis.

A less acute cholecystitis is not uncommon. It is not infrequently noted in our medical reports that a patient with typhoid fever becomes jaundiced. This is probably due to a catarrhal process occurring in the gall bladder or its ducts.

Epistaxis is by no means an uncommon thing to occur, but sometimes it may be exceedingly severe.

Parotitis is not a common complication, but on looking through our Medical Reports one finds it mentioned in a number of cases, several of which suppurated. I may remind you that the swelling which appeared in the patient of whom I first spoke was thought to be due to an enlarged parotid gland.

More important are certain changes that one gets in the larynx. Sometimes one has laryngitis with more or less soreness about the throat and hoarseness of the voice. Not infrequently in these cases ulceration occurs. When ulceration of the larynx is found in typhoid fever it takes place just where there is most lymphoid tissue in the larynx, usually on the epiglottis or in the arytæno-epiglottidean folds.

Sometimes the ulceration extends more deeply and sets up a perichondritis, leading to necrosis of the laryngeal cartilages. Tracheotomy may then be necessary. Perichondritis and deep ulceration may cause emphysema of the neck. Ulceration may also, though rarely, occur in the œsophagus.

I have already mentioned the ear troubles that may arise in the course of typhoid.

Then there are certain genito-urinary complications The first of these is orchitis—inflammation of the body of the testes. Orchitis occurs in the course of a number of specific fevers, and may develop in typhoid fever.

There are also urinary troubles, which, however, are of medical rather than surgical interest.

I wish now to speak of a very important complication indeed — one might almost call it a sequela—namely, periostitis and necrosis. Sometimes we find, in the course of typhoid fever, that the patient has pain, followed by redness and swelling over one of the long bones, usually the tibia. This may break down and a sinus persist. One generally finds this change taking place some time after the disease. Typhoid periostitis may actually commence three months or more after the fever. At times it occurs considerably later than that, and it has been stated to commence even some years after the patient has recovered from typhoid. In these cases a bone becomes tender, swelling and redness appear, often followed by a small collection of pus, which discharges, leaving a sinus. This disease occurs far more commonly in the ribs, sternum, even costal cartilage, and tibia. If one explores that sinus which is so frequently found, tracing it to the end, one nearly always finds a sequestrum. It may be quite a tiny one—only about the size of a pin's head—but it is a very characteristic thing to find a small area of necrosis in typhoid periostitis. There is thus in a typical case a great deal of swelling of the bone, with a small sinus and a small sequestrum.

In some of these cases the pus exuded from these small sinuses may still show the typhoid organism even though some years may have elapsed since the patient had the disease. It is interesting to note that in a great proportion of patients with typhoid fever the typhoid bacilli may be found in the bone marrow, which explains why actual bony lesions are by no means infrequent.

Now, there is very often an important point about diagnosis in typhoid periostitis in that it is liable to be confused with the tertiary syphilitic disease of bone. The conditions very closely resemble each other. I intended to bring down a specimen to show you, but I was much surprised to find that apparently we have not got a specimen of this typhoid disease of bone in our museum. But you must not conclude that it is therefore a rare trouble, for, looking through the reports in the medical wards, I find that time after time it is noted that a case of typhoid fever developed periostitis.

Arthritis may also occur, and is not infrequently associated with periostitis. In typhoid arthritis one has a joint trouble, usually arising actually in the course of the fever. Its nature is essentially pyæmic, and one has the septic focus in the intestine, just as in other specific fevers, such as scarlet fever, we have a septic focus of infection. Sometimes the pus contained in the joint shows the typhoid bacillus.

Other complications include empyema and pleurisy, which are not infrequent. Then there are a number of cutaneous complications which occasionally are seen. Boils are not uncommon, nor are cellulitis and subcutaneous abscesses. Sometimes, too, one has localised areas of gangrene on the skin. Even now we have not exhausted the conditions that may develop after typhoid fever, some of which are due rather to the wasted and low condition of the patient after a long illness than to the disease itself.

Appointments.

Civil.

Desprez, H. S., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Northtawton District by the Okehampton (Devon) Board of Guardians.

Sharp, F. A., M.B., B.S. Lond., D.P.H., has been appointed Senior Assistant M.O.H. and School Medical Officer, County Borough of Derby.

Steinhaeuser, J. R., has been reappointed Medical Officer of Health for Lewis.

Naval and Military.

Fleet-Surgeon W. J. Bearblock, R.N., has been appointed to the *Ramillies*, and Staff-Surgeon A. R. Thomas, R.N., to the *Mars*.

Captain E. J. O'Meara, F.R.C.S., I.M.S., is promoted to be Major.

Change of Address.

F. E. Fremantle, M.B., M.Ch., F.R.C.S., M.R.C.P., D.P.H., from 30, Chester Street, Belgrave Square, to 17, Queensberry Place, S.W.

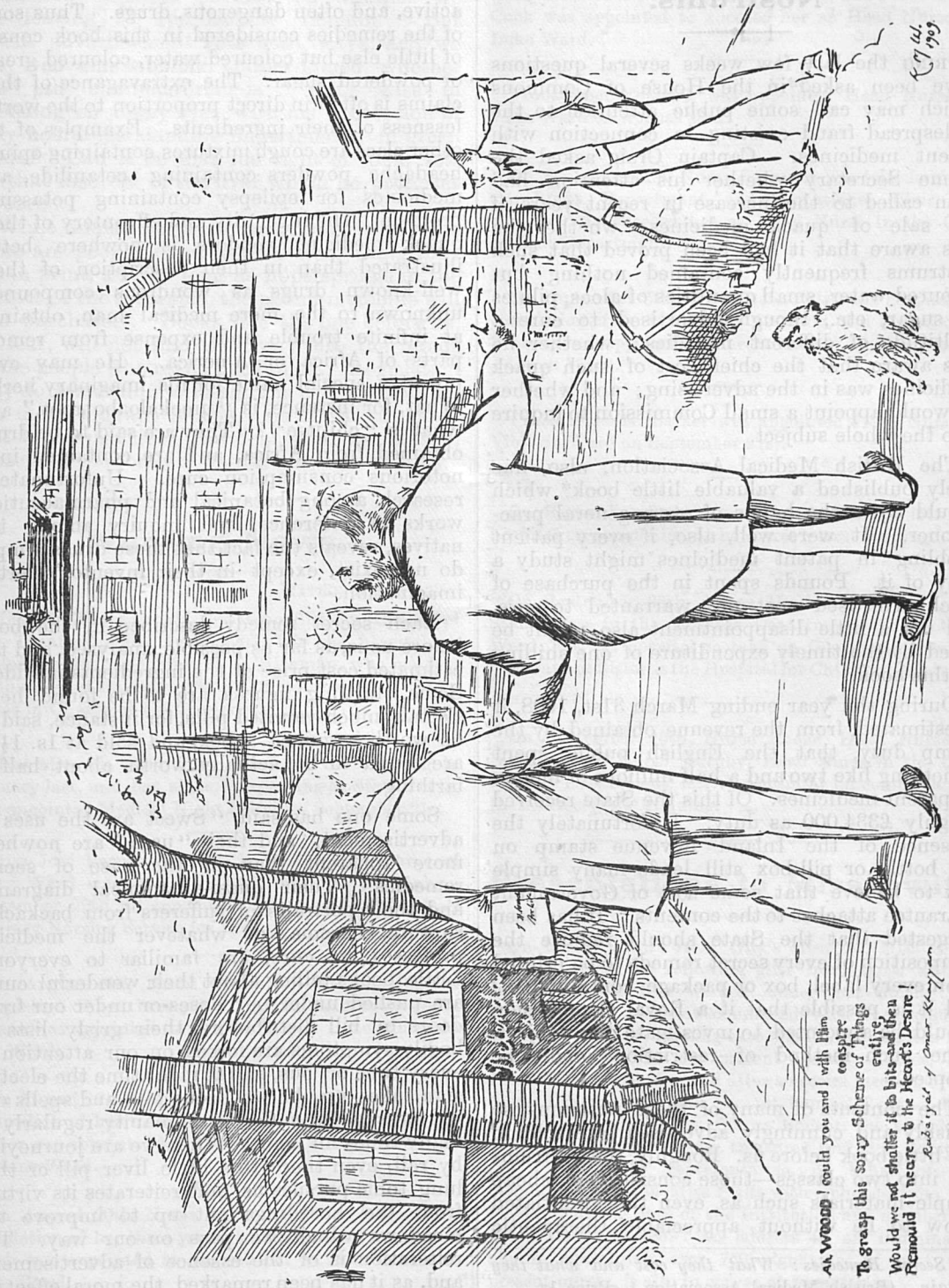
Herbert French, M.D. Oxon., F.R.C.P. Lond., from 26, St. Thomas's Street, S.E., to 62, Wimpole Street, W. (Telephone, Paddington 5448; Telegrams, "Auscultate," London.)

Edward Macdonald Judge, L.S.A., from 29, Newington Causeway, S.E., to Pond View, Chislehurst.

Chas. R. Nicholson, M.R.C.S. Eng., L.R.C.P. Lond., from Battle, Sussex, to Rochford, Essex.

F. J. Morton Palmer, M.B. Lond., from Holford, Thrale Road, Streatham Park, S.W., to 96, Marine Parade, Worthing, Sussex.

(The Editor will be very glad to receive a postcard with notes of any change of address.)


AH WOOD! could you and I with Him conspire
To grasp this sorry Scheme of Things entire,
Would we not shatter it to bits—and then
Remould it nearer to the Heart's Desire!
Rubáiyát of Omar Khayyám

Nostrums.

During the last few weeks several questions have been asked in the House of Commons which may call some public attention to the widespread fraud existing in connection with patent medicines. Captain Craig asked the Home Secretary whether his attention had been called to the increase in recent years of the sale of quack medicines; whether he was aware that it had been proved that such nostrums frequently contained nothing but coloured water, small quantities of aloes, pilules of sugar, etc., though advertised to cure a multitude of different maladies; whether he was aware that the chief cost of such quack medicines was in the advertising; and whether he would appoint a small Commission to inquire into the whole subject.

The British Medical Association, also, has lately published a valuable little book* which should be in the hands of every general practitioner. It were well, also, if every patient dabbling in patent medicines might study a copy of it. Pounds spent in the purchase of much-advertised nostrums warranted to cure, and not a little disappointment also, might be saved by the timely expenditure of one shilling on this book.

During the year ending March 31st, 1908, it is estimated, from the revenue obtained by the stamp duty, that the English public spent something like two and a half millions of money on patent medicines. Of this the State received roughly £334,000 as duty. Unfortunately the presence of the Inland Revenue stamp on the bottle or pill-box still leads many simple folk to believe that some sort of Government guarantee attaches to the contents. It has been suggested that the State should require the composition of every secret remedy to be printed upon every label, box or package containing it, and it is possible that if a Royal Commission should be appointed to investigate the subject, some such method of restriction might be adopted.

The contents of many of these nostrums, so lavishly and cunningly advertised, are told in the little book before us. Roughly, the nostrums fall into two classes—those consisting of cheap simple materials such as even the uninitiated know to be without appreciable therapeutic value; and, secondly, those which contain active, and often dangerous, drugs. Thus some of the remedies considered in this book consist of little else but coloured water, coloured grease or powdered sugar. The extravagance of their claims is often in direct proportion to the worthlessness of their ingredients. Examples of the other class are cough mixtures containing opium, headache powders containing acetanilide, and medicines for epilepsy containing potassium bromide. The ingenuity and effrontery of these quack medicine vendors is nowhere better illustrated than in their description of these well-known drugs as wondrous compounds, unknown to the mere medical man, obtained at infinite trouble and expense from remote parts of Africa or America. He may even invent a special name for his imaginary herbs. What, for instance, is "umckaloabo root," and what is "chijitse"? They are said to be drugs obtained from Africa, and are contained in a notorious consumption cure. Unfortunately, research among botanical and pharmaceutical works of reference, and inquiry among the natives, reveals the fact that these drugs simply do not exist, except in their inventor's fertile imagination.

Each secret remedy described in the book before us is, as far as possible, analysed, and the estimated cost price of the ingredients is added. Some startling figures are to be found here. Certain much-vaunted pills, for instance, said to be worth a guinea a box, and sold at 1s. 1½d., are found to be actually worth about half a farthing.

Some one has said, "Sweet are the uses of advertisement," and their "uses" are nowhere more apparent than in the case of secret remedies. Their quasi-anatomical diagrams, and their portraits of sufferers from backache, rupture, eczema, or whatever the medicine professes to cure, are familiar to everyone. Little books telling about their wonderful cures are pushed under our noses or under our front doors by bill distributors, their grisly lists of bodily symptoms are forced on our attention in every tube or 'bus, and at night time the electric sign takes up the wondrous tale and spells out its message to suffering humanity regularly so many times an hour. When we are journeying by rail, even there this little liver pill or that lung tonic pursues us, and reiterates its virtues from the hoardings put up to improve the meadows which we pass on our way. The reiteration is of the essence of advertisement, and, as it has been remarked, the moral effect on

* *Secret Remedies: What they cost and what they contain.* (British Medical Association.) Price 1s.

us of the first liver-pill hoarding after, say, Willesden, depends entirely on whether we are leaving or approaching London. But lavish advertisement cuts both ways, and we may well ask, with Mr. Quiller-Couch, whether the pill manufacturer is "quite wise in offending so many eyes with his succession of ugly hoardings standing impertinently in green fields? Can it be that the sight of them sets up that disorder of the liver which he promises to cure?"

While human nature remains what it is, while there are people found to believe anything they see in print, and so long as hope springs in the breasts of the incurable, the patent medicine will find purchasers. Books like the one before us, we fear, will not find their way into the hands of the people who really need them. Legislation may do something to lessen the evil by exposing the more flagrant shams, but it cannot completely banish it. The fool and the knave, especially the former, we have always with us.

Nursing News.

Matron's Office.

Miss E. Edwards, who has been Sister-in-Charge of the Theatres since April, 1908, left the hospital on September 2nd, and Miss K. L. Hickman, who has just completed her training, was appointed to succeed her as Sister-in-Charge of the Theatres.

Miss Alice M. Hart, who completed her training in January last, and has since been acting as Staff Nurse, was appointed Medical Night Sister on September 21st.

Miss José Pagan, who has been Sister-in-Charge of Mary Ward since October, 1908, left the hospital on September 29th on appointment to Queen Alexandra's Military Nursing Service for India.

On August 6th, Nurse Ottley left the hospital on completion of her three years' training, and Probationer Nelson was appointed to succeed her as Head Nurse in Job Ward.

On August 17th, Nurse La Touche left the hospital on completion of her three years' training, and Probationer Fisher was appointed to succeed her as Head Nurse in Lazarus Ward.

On August 20th, Nurse Hancock left the hospital on completion of her three years' training, and Probationer Leigh was appointed to succeed her as Head Nurse in Luke Ward.

On August 28th, Nurse Morrison left the hospital on completion of her three years' training, and Probationer Cook was appointed to succeed her as Head Nurse in Luke Ward.

Probationer Forsaith was appointed Head Nurse in John Ward on August 23rd.

On September 1st, Nurse Sergeant was transferred to the Light Department, and Probationer Blair was appointed to succeed her as Head Nurse in the Out-Patient Department.

On September 5th, Nurse Beesley left the hospital on completion of her three years' training, and Probationer Worsley was appointed to succeed her as Head Nurse in Addison Ward.

Probationer N. Barker was appointed Head Nurse in Victoria Ward on September 21st.

On September 24th, Nurse A. M. Phillips left the hospital on completion of her three years' training.

On September 25th, Nurse Hunter, who has been Staff Nurse in the Massage Department and Victoria Ward, left the hospital to take up the appointment of Out-Patient Sister at the Hospital for Children, Shadwell.

On September 26th, Nurse Rooke, Head Nurse in Naaman, and Nurse Murphy, Head Nurse in the Out-Patient Department, left the hospital on completion of their three years' training.

Presentations to Miss Swift.

On her departure from Guy's Hospital, Miss S. A. Swift received the following gifts from those who at different times had worked under her during the nineteen years she was connected with the hospital. A green crocodile dressing-case with ivory brushes and silver fittings from the present Sisters, Nurses, and Administrative Staff; and after a special meeting of the Council of the Past and Present Nurses' League, held on September 20th, Mrs. Cosmo Bonsor, the president, Mrs. C. H. Fagge, the hon. treasurer, and Mrs. Forsyth, the Past Nurses' representative, on behalf of the members, presented Miss Swift with a cheque from the Private Nursing Staff of the Institution and members of the Nurses' League. An address in an illuminated album, containing over 750 signatures of past and present nurses, is also in course of preparation.

The Student's Guide to Osler.*

Some people are keen upon Taylor
When studying medicine's wiles,
While others will steal a few moments with Wheeler
—Both excellent books in their styles—
But give me the text-book of Osler
(Or don't, for I've bought it by now!)
And set *con amore* the laurel of glory
On William of Baltimore's brow.

It isn't so much that it's brainy,
Although it's undoubtedly that,
I'm not eulogistic because each statistic
Comes out so impressively pat—
It's all for the sake of the stories
He tells with a vigour so rare;
No poisonous bloater has dogged Minnesota,
But goes to posterity there.

Micawber, Tom Brown, Colonel Newcome,
And other most excellent men,
My late predilections in popular fictions
Have passed from my ultimate ken.
For now I would dream of new heroes,
Physicians from every clime,
And Surgeons of valour in Osler's Valhalla
Who tell of the deeds of their time.

Hippocrates gaily discourses
Of Erysipelatous lore,[1]
And tells what the sight is of peritonitis[2]
For those who've not seen it before.
Pneumonia spurred Aretæus[3]
To study its devious laws,
Which object titanic was followed by Laennec,[4]
Till Fraenkel[5] discovered the cause.

And doubtless our myriad Guy's men
May well be turgescent with pride,
As they scan with delight the remarks of Hale White[6]
On a case of cirrhosis that died!
There's a whole paragraph about Pitt's[7] work
On effects of arterial flaw,
Which makes me repine at the solit'ry line
That's allotted to Perry and Shaw.[8]

But dearest are those to you, William,
Who shed in impetuous pars
Their knowledge like manna beneath the bright banner
That glows with the Stripes and the Stars.
Gerhard,[9] Cushing,[10] Fitz,[11] and Weir Mitchell,[12]
We honour, but what of each name
That you print till they're more than the sands of the shore,
And equally worthy of fame?

For why should it matter to usward,
If Osborn[13] has sent you a screed,
Or why have you sought a brief mention of Porter,[14]
Or Barker,[15] or Caton,[16] or Reed[17]?
I sometimes am seized with a yearning,
In Appleton's[18] ledger to look,
What fun it would be if we only could see
Whether each of them purchased the book!

But when of the names we are weary
(Directories muddle the brain),
We're provided by you with philosophy too
In the trite Aphorisms of Cheyne.[19]
Geography also you teach us,
Until I came under your thrall,
I don't mind confessing that Conoquenessing[20]
I never had heard of at all.

And those who would seek for emotions
No longer are destined to grope
In the desolate train of Corelli or Caine,
Or the pseudo-heroics of Hope.
Sir Walter's historic romances
Appear by comparison vague,
To the terrible tale from the "Pioneer Mail,"
On the ramifications of plague.[21]

What fun when the "Western Physician,"
With colic and devious doubt
His judgment upsetting, insisted on getting
His blameless appendix cut out![22]
What pathos and woe when the extern
Came down the proud father to tell
That bouncing young Barney, the fifteenth Morgagni,
Was born with the jaundice as well![23]

When night had enshrouded the College,
Unhindered by pallid moon beams,
The bleeding remains of the Appleton-Swains[24]
Came galloping into my dreams.
And Dr. R. P. Cooke[25] of Cuba
(While Oliver drearily bled),[26]
Stood draining his bumpers to Frenchmen[27] with jumpers,
And gazing thro' Cardinal's head.[28]

How useful it is in the Conjoint,
To be able urbanely to talk
Of the folk at Ellezelles,[29] who were really unwell
After eating a portion of pork!
(Thus we, by the way, should be thankful
We never fell under the ban
Of a greater disease than extreme D & Vs
When we've dined at the Café Farnan.)

* * * * *

But no European can honour,
E'en were he with genius rife,
With adequate Bravo, your *multum in parvo*,
That glorified Bradshaw of Life!
It hails from the beautiful country
Where Modesty's flower never dwells,
And from goosb'ries and pears up to Trust Millionaires
Things are bigger than everywhere else.

And now you are with us at Oxford
You've plenty of leisure, no doubt,—
So make I petition, another edition,
And leave the Pathology out;
Cut symptoms and treatment, and give us
More tales, repartees, epigrams,
It would leave the whole screed more amusing to read,
And quite as much use for exams!

1909. S. S.

* The references are to the Sixth Edition.

[1] p. 213. [2] p. 582. [3] p. 165. [4] p. 170. [5] p. 167. [6] p. 563. [7] p. 982. [8] p. 471. [9] p. 57. [10] p. 110. [11] p. 519. [12] p. 388. [13] p. 1055. [14] p. 533. [15] p. 11. [16] p. 431. [17] p. 470. [18] Title-page. [19] p. 463. [20] p. 62. [21] p. 239. [22] p. 518. [23] p. 537. [24] p. 748. [25] p. 235. [26] p. 749. [27] p. 1055. [28] p. 997. [29] p. 381.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Certificates for Residents.

Dear Sir,—I hope the authorities at Guy's will soon see their way to grant certificates, or other proof of work done, on the completion of a senior appointment. Why has this old custom been dropped?

The holding of appointments at Guy's is most one-sided. Men are naturally keen to hold them, as I was, and to a great extent the hospital's existence depends upon their doing so. This work is done for no pecuniary reward, and yet the worker, at the end of his time, is cast off without so much as a word.

I shall not forget my last Thursday morning attendance at House Committee. No word of recognition for services performed was given, and no word of good wishes for the future. The Committee can perhaps hardly be expected to know when a man is leaving, but the Superintendent knows, and it should be his business to acquaint them.

Courtesy is always appreciated, and costs nothing.—I remain, yours faithfully,

Sept. 27th, 1909. "R. M. O."

[This subject is referred to in "Passim."—Ed.]

The Dean's Report.

Dear Sir,—The above has only just reached me in its printed form, and I take the earliest opportunity of protesting against the misleading statements made in reference to the prospects of students entering the medical profession. The public is told that the recently-qualified man can make a higher income than a few years ago, that the demand for such far exceeds the supply, and that the profession ensures an income which compares favourably with that of other professions. And yet at the same time the British Medical Association—composed mainly of general practitioners—is contemplating sending out circulars to the head masters of schools stating that the medical profession is greatly overcrowded, and, in consequence, the chance of making a living is poor and totally disproportionate to the cost of getting qualified.

It is doubtless the case that provincial hospitals are unable to get the medical officers they require; the salaries they pay and the conditions under which the house-surgeons are placed is in many cases quite enough to account for the difficulty. The enormous increase in the number of hospitals also accounts, to some extent, for it. Every little hospital wants a house-surgeon, and every effort is now made by those who hold hospital appointments to do as little work as possible, and yet hold the hospital appointment that gives them so great an advantage over their colleagues in the same town.

If the staffs of small provincial town hospitals were made to do all the work themselves and to arrange for one to be always available, many newly-qualified men would be saved from wasting much valuable time in holding appointments having very little work to do, and that of a very trivial character, and getting into lazy habits.

A man joins the medical profession to get a living, and his primary aim should be so to direct his career that one step leads to another. In how many of these small provincial towns is there an opening for practice? Very few. For one man who gets a good thing there are dozens who leave their appointment feeling that they are on the same step of the ladder as when they went there. Experience is a fine thing, and I have heard it stated that fools learn by it. No wonder, then, that young medical men are fighting shy of house-surgeoncies to provincial hospitals.

Another reason for the shortage is that new careers are now open in school inspection, assistant medical officers of health, and such like. But the chief ultimate result, and the goal to which all young medical men aim, is to secure a good general practice. Even if the newly-qualified man gets a higher salary, can he earn more later on in his career? Is general practice as remunerative as it used to be? All the practitioners I meet tell quite a different tale; they all complain that year by year general practice gets worse and worse, that their sources of income are becoming more and more curtailed, and that the future looks very black indeed. Expenses increase and takings decrease.

The competition is such that in the majority of small towns all the medical men hate each other like poison, and watch each other like cats watching a mouse. Life in a small town under these conditions is most unpleasant, and detracts from all the pleasure of one's profession. Club practice makes the work most arduous, cheap midwifery kills slowly but surely, long journeys for parish patients wear one out, and bad debts bring the last straw.

I should like the Dean of the Medical School to change places with me for a week or two; he would then tell quite a different tale, and be as anxious to warn as he is now to encourage. Why all this fictitious inducement to join an already overcrowded profession? The teaching staffs of our medical schools must live, I suppose; but it is not a kind thing to mislead parents into putting their sons into a profession that gives them such a very poor return for a very large outlay. Apologising for troubling you,—Believe me, yours truly,

"TWENTY YEARS OF GENERAL PRACTICE."

Books Received.—Wallis's Atlas of Dental Extraction; Ellison's Massage; Gardner's Surgical Anæsthesia; Basu's Dietetic Treatment of Diabetes; Lugaro's Problems in Psychiatry; Peake's Notes on Denta Anatomy; Brodie's Dissections; Savill's Clinical Medicine; Habershon's Diseases of the Stomach; Gray's Anatomy, 17th edition; Cunningham's Anatomy, 3rd edition; Hale White's Materia Medica, 11th edition; Scales's Practical Bacteriology.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Quain's Elements of Anatomy. Eleventh edition, in 4 vols. Vol. III., Part 1, Neurology. (Longmans & Co.)

This volume, the second published of the new and revised edition of Quain's Anatomy, fully comes up to the high standard set by Vol. I. All the most recent work on the details of the spinal cord and brain are embodied in it, making the work most interesting and complete.

The first part of the volume is devoted to the spinal cord, its gross and minute structure, and is profusely illustrated with diagrams and pictures. The second part deals with the brain, and is extremely full, requiring very careful perusal for proper appreciation.

It is a book to be most strongly recommended to teachers and senior students.

Manual of Operative Surgery. Third edition. By H. J. Waring, M.S., F.R.C.S. (Henry Frowde and Hodder & Stoughton.) Price 12s. 6d. net.

The first edition of this work appeared in 1898, and the fact of a third edition being now needed is a proof of its excellence. In this edition considerable changes have been made, not least among which may be mentioned the omission of descriptions of operations no longer performed. Mr. Waring's book is greatly to be recommended for its completeness and clearness of detail.

An Atlas of Dental Extractions, with Notes on the Causes and Relief of Dental Pain. (Designed for the use of Medical Students and Practitioners.) By C. Edward Wallis, L.D.S., M.R.C.S. Eng., L.R.C.P. Lond.

We can sincerely recommend this book to those for whom it is intended.

The first part of the book discusses, in very concise language, "The Causes and Relief of Dental Pain," and contains also "Notes on the Extraction of Teeth."

The second part deals with radical treatment only, and consists of a series of very good plates which explain fully the different methods of removing teeth and roots.

Though this book is, perhaps, rather elementary for *dental* students, the part on the "Causes and Relief of Dental Pain" would be found very interesting, and perhaps instructive, especially to junior men.

In the second part, also, those plates which show how to improvise a dental operating chair, and give methods of extracting teeth under circumstances other than the usual, should prove very useful to the *dental* practitioner who is called upon to perform some radical dental operation when deprived of part of his equipment.

To the *medical* practitioner we recommend the book, as it will assist him (to use the author's words) "to perform such emergency dental operations as may be expected to occur in a country practice, or on board ship, where the services of a dental surgeon cannot be obtained."

The Dental Directory, 1909: Compiled from official sources. (John Bale, Sons, & Danielsson, Ltd.) 2s. 6d. net.

This book supplies a real demand, though we could wish that it were not compiled from official sources, (viz.: *The Dentists' Register*). This may sound strange, but we have noticed that the book contains the names of qualified men who are not practising. And, again, two of our own house-surgeons are entered as practitioners in certain towns—addresses which were sent up simply for registration purposes. This sort of thing is apt to be misleading, as the total number of practitioners actually practising in a town thus looks greater than it really is. Also the names of several deceased gentlemen appear in the directory. On the other hand, we find several names missing (we refer, of course, to the topographical list, and not the alphabetical one), amongst others, that of a member of the staff.

No doubt these mistakes will be rectified in the next issue. The publishers have inserted some very useful appendices, such as "The Dentists Act, 1878," and the "L.D.S. Curriculum," (which, by the way, is that of the English College, which fact should be specified), also lists of the following: "Dental Hospitals and Schools in the United Kingdom," "Dental Surgeons attached to the General Hospitals in London," "Dental Societies," and "Dental Publications."

One other matter we would like to point out, and that refers to the London suburbs. In looking up a suburb, *e.g.*, Wimbledon, we find that only some of the names of the dentists practising in Wimbledon occur in the Wimbledon list, the others being mentioned under "London, S.W." We would suggest to the publishers that all places within the London County Council area should be treated as in London, and places without should be treated as provincial towns.

One other suggestion, and that is, that the names of the Medical and Dental Schools where the practitioner was educated be appended to his name in the alphabetical list, together with any appointments that he has held. If these suggestions are carried out, we have not the slightest doubt that "The Dental Directory" will have come to stay.

Papers, etc., Received.

Messrs. J. & A. Churchill have just issued a new catalogue of their medical and scientific books, and on looking through it one is struck by the number of famous text-books which are published by this well-known firm. Even if they published no other book, Messrs. Churchill would be famous as publishers of the *Medical Directory*,

a work indispensable to all medical men and hospital workers, and valued by all except those obsessed individuals who see in it, as in everything else, only another form of indirect advertisement.

Messrs. Churchill's new catalogue is very conveniently arranged for reference, and should be consulted by anyone contemplating additions to his medical library.

Trade Notes.

Treatment of Diabetes by "Diabeteserine."

In the *Med. Klinik*, 1905, Nos. 55 and 56, Dr. Manfred Fraenkel of Berlin presented a new theory of the pathogenesis of diabetes, based on the idea that normally the transformation of glycogen into sugar is due to a ferment which arises from the decomposition of red blood corpuscles. This ferment is produced more rapidly when there are circulatory disturbances, until a point is reached when the quantity of sugar created no longer can be utilized, supersaturates the blood, and is excreted in the urine.

A condition for normal utilization of sugar is a normally functioning vasomotor system, with its centre on the floor of the rhomboid fossa and a normal pancreas. The trophic factors are of no small importance. A dominating position over the entire vasomotor system of the liver must be ascribed to the vagus. In this connection the relationship between diabetes and tuberculosis is of much interest. Bernard found sugar-forming fibres in the lung fibres of the vagus, so that any injury to the former must also strike the latter. This may explain the secondary occurrence of tuberculosis in diabetes.

Fraenkel then points out the possibility of influencing the vagus by means of eserine. He considers the activity and pathology of the pancreas and the pathology of diabetes in general, and emphasizes that changes in the pancreas present themselves as interstitial degeneration especially of Langerhan's cells. These, too, have their cause in the circulatory disturbances. In diabetes all other organs always show signs of extensive hyperæmia. The final link in his chain of reasoning is the significance of arteriosclerosis. He cites Noorden and Croner in support of the connection between it and diabetes. Arteriosclerosis is primarily the expression of circulatory disturbances, and according to the location of the vascular injury one subject is exempt from diabetes, while another succumbs thereto when the arteriosclerosis establishes itself in the hepatic vessels.

He therefore combines eserine with the modified salts of Trunecek's serum (antisclerosin), the tablets being given the name of "Diabeteserine," and used the same with very good results in 22 of 29 cases, while he demonstrates by several histories.

This preliminary publication has found confirmation in the reports of Markbreiter (Wien. Med. Presse, 1906, No. 36); Assmann (Medico, 1906, No. 22); Huber (*Zentralblatt f. d. ges. Therapei*, 1906, No. 9); and Freidmann (Oesterr. Aerzte-Zeitung, 1906, No. 12).

Diabeteserine is furnished by Messrs. Reitmeyer & Co., of 63, Crutched Friars, in two forms. Diabeteserine No. I. contains the blood salts of 0·0003 gm. physostigmine salicylate per tablet; Diabeteserine No. II. contains in addition 0·00005 gm. atropine per tablet. No. II. is ordered in cases with obstinate constipation, colicky pains, or pronounced obesity, when No. I. fails to give the desired results.

The dosage is one or two tablets thrice daily for from two to four weeks. The diet, of course, must be adapted to the requirements of the individual.

Sport.

Football Fixtures 1909—1910.

RUGBY.—First Fifteen.

Date.	Club.	Ground.
1909.		
Oct. 2	London Devonians	Home
9	Catford	Home
16	Rosslyn Park	Home
23	U. C. S. Old Boys	Home
27	Cambridge University	Home
30	Lennox	Home
Nov. 6	Marlboro' Nomads	Home
10	Oxford University	Home
13	London Welsh	Away
20	London Irish	Away
27	Streatham	Home
Dec. 4	Northampton	Away
11	Richmond	Home
18	Bedford...	Away
1910.		
Jan. 1	Catford...	Away
8	Rosslyn Park	Away
12	Chatham. R. N. R. United... ...	Home
15	Blackheath	Home
22	Old Merchant Taylors	Away
26	Oxford University	Away
29	London Scottish	Home
Feb. 5	United Services	Home
12	London Welsh	Home
16	Cambridge University	Away
19	Old Leysians	Home
26	Old Alleynians	Home
Mar. 5	Lennox	Away

Second Fifteen.

1909.		
Oct. 2	African Banks...	Away
9	Catford "A"	Away
16	London Irish "A"	Away
23	U. C. S. Old Boys "A"	Away
30	Lennox "A"	Away
Nov. 6	Streatham "A"	Away
17	King's College Eng.	Home
20	Aesculapians	Home
27	Tonbridge	Away

Dec. 1	Dulwich College	Away
4	Marlborough Nomads	Home
8	Royal Veterinary College	Home
18	H. K. & S. Bank	Home
1910.		
Jan. 1	Catford "A"	Home
8	Lennox "A"	Home
15	Aesculapians	Away
22	H. K. & S. Bank	Away
29	African Banks	Away
Feb. 5	Rosslyn Park "A"	Away
9	Bedford Grammar School	Away
12	Hastings and East Sussex	Away
19	Harrow...	Away
26	U. C. S. Old Boys "A"	Away
Mar. 2	Borough Road College	Home
5	London Scottish "A"	Away

ASSOCIATION.—First Eleven.

Date.	Club.	Ground.
1909.		
Oct. 2	Trial Game	Home
9	Trial Game	Home
16	Beckenham	Away
20	Old Grammarians	Home
23	Wellingborough Masters	Away
27	Emeriti	Home
30	Croydon Park	Home
Nov. 6	Old Malvernians	Home
13	Old Carthusians	Home
20	Eversleigh	Home
27	Wanderers	Away
Dec. 1	Casuals...	Home
4	Old Westminsters	Home
8	Crouch End Vampires	Home
11	Croydon Park	Away
18	Surbiton Park...	Away
1910.		
Jan. 1	Beckenham	Home
8	Eversleigh	Away
12	Old Felstedians	Home
15	Old Westminsters	Home
22	Wanderers	Away
29	Carshalton	Away
Feb. 2	Casuals...	Home
5	Wellingborough	Away
16	Crouch End Vampires	Home
19	... ...	Away
26	Old Tollingtonians	Home
Mar. 5	Surbiton Park	Away
12	3rd Kent Artillery	Away
19	... ...	Away
26	Tunbridge Wells	Away

Second Eleven.

1909.		
Oct. 2	Trial Game	Home
9	Trial Game	Home
16	Beckenham "A"	Home
Oct. 20	St. Thomas' II	Away
23	Foxes	Home
30	Old Citizens "A"	Away
Nov. 3	St. Bartholomew's II	Home
6	Eversleigh "A"	Away
13	College Park "A"	Away
20	... ...	Away
27	Reigate Priory "A"	Home
Dec. 1	Brentwood School	Away
4	... ...	Away
11	Eversleigh "A"	Home
18	Old Cranleighans "A"	Home
1910.		
Jan. 1	Beckenham "A"	Away
8	St. Thomas' II	Home
12	... ...	Away
15	Reigate Priory "A"	Away
19	St, Bartholomew's "A"	Away
22	University College	Home
29	Wanderers "A"	Away
Feb. 2	Brentwood School	Away
5	Old Citizens "A"	Home
19	Lee Reserves	Home
Mar. 5	Horton Asylum	Away
26	Lee Reserves	Away

Births.

BYFORD.—On September 25th, at Pyrocanth, Ruthin, N. Wales, the wife of W. Francis Byford, M.R.C.S., L.R.C.P. Lond., of a daughter.

SMART.—On September 19th, at Clifton House, Shelley, Huddersfield, to Dr. and Mrs. H. Douglas Smart, a daughter.

THOMPSON.—On September 12th, at Sutherland House, Greencroft Gardens, Hampstead, N.W., the wife of Ralph Thompson, Ch.M., F.R.C.S., of a daughter.

TULK-HART.—On August 20th, at 4, Gloucester Place, Brighton, the wife of T. Tulk-Hart, M.D., of a son.

WILSON.—On August 22nd, at Bloxham, Oxon., the wife of Allan R. Wilson, M.B., B.Ch., of a daughter.

Marriage.

CAMERON—HILL.—At St. Margaret's, Lee, on the 14th ult., by the Rev. L. E. Clapton, Hector Charles Cameron, M.B., M.R.C.P., younger son of Sir Hector Clan Cameron, M.D., of Glasgow, to Dorothy, daughter of the late W. E. Hill, Esq., and of Mrs. Hill, 35, Lee Terrace, Blackheath, S.E.

Deaths.

DEEPING.—On August 19th, at Hastings, George Davidson Deeping, L.R.C.P. Lond., M.R.C.S., L.S.A., in his 61st year.

PHILLIPS.—On September 2nd, at Cloghan House, Haverfordwest, Edward Picton Phillips, M.R.C.S. Eng., L.S.A.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

October.

Sat. 16. 1st XV. v. Rosslyn Park (Home).
2nd XV. v. London Irish "A" (Away).
1st XI. v. Beckenham (Away).
2nd XI. v. Beckenham "A" (Home).
Physical Society: Pathological Meeting, 8 p.m. (President, V. Townrow).

Mon. 18. Clinical Lecture by Mr. Rowlands (Orthopædics), 1.15 p.m.

Wed. 20. 1st XI. v. Old Grammarians (Home).
2nd XI. v. St. Thomas's II. (Away).

Thur. 21. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Darke).

Sat. 23. 1st XV. v. U.C.S. Old Boys (Home).
2nd XV. v. U.C.S. Old Boys "A" (Away).
1st XI. v. Wellingborough Masters (Away).
2nd XI. v. Foxes (Home).
Debating Society's Meeting, 8 p.m.

Mon. 25. Final M.B., B.S. Lond. begins.
Clinical Lecture by Mr. Targett (Gynæcology), 1.15 p.m.

Wed. 27. 1st XV. v. Cambridge University (Home).
1st XI. v. Emeriti (Home).

Thur. 28. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Lee & Brown).

Passim.

THE opening meeting of the Physical Society took place on October 7th, and passed off successfully, though the dinner was not quite so well attended as last year. Mr. Cosmo Bonsor occupied the chair at the dinner, and was supported by Sir Hector Cameron, and Dr. Frederick Taylor. Among the guests were Drs. Hale White, Groves, Goodhart, Vaughan Pendred, Larkin, Eyre, French, Eason, and Fawcett; Messrs. Symonds and Ormond; and Sir James Sawyer. Dr. Hale White proposed the toast of "The Chairman," which, as he rightly remarked, stands on almost the same footing as the loyal toast among us at Guy's. Mr. Cosmo Bonsor briefly replied, but otherwise there was no after-dinner oratory. That was reserved for the subsequent meeting in the Anatomy Theatre, which we report elsewhere. Sir Hector Cameron, who, as the father of our popular Senior Medical Registrar, started with a prejudice in his favour, secured the attention of his audience by an interesting address, so well delivered that every word was clearly audible. It is a pity that every address to which we are privileged to listen is not equally faultless in this respect. After the meeting the usual display of instruments, books, etc., was

held in the Museum. Messrs. Ash presented a special souvenir programme to each member and visitor present.

The Society's first ordinary meeting is to be held this evening in the Library at 8 p.m. It is a Pathological meeting, and Mr. Townrow will occupy the chair.

The football season has started well, and there is every indication of a successful career for our First Fifteen, which is practically identical with last season's team. Our fixture list is of exceptional interest this year, and before Christmas includes home matches with Cambridge University on the 27th of this month, with Oxford University on the 10th of November, and with Richmond on December 11th, so that members and visitors will have opportunities of seeing at Honor Oak Park some of the very best football in the country. We are also playing the London Welsh and the London Irish on outside grounds. We hope that the increased stand accommodation on our ground will add both to the comfort of visitors and to the finances of the Clubs' Union.

The *Daily Graphic* the other day opened a series of articles on the "Hospitals and the Rugby Game" by an excellent portrait group of the Guy's team as cup-holders, and some notes on the individual players, and on hospital Rugger in general. Speaking of last season, the writer remarks:—"Than Guy's there were no finer forwards in England, and the side as a whole was well balanced and clever, reminding one somewhat of the days when such class players as O'Brien, McEvedy, and Morgan were in the fifteen. . . Fortunately, the same side are available this year, so that the outlook is good." The *Daily Graphic* series of articles is to be continued by one on the London team, which appears to-day.

Compulsory lectures remain one of the stock subjects of the chronic grumbler. The more moderate grumbler objects to them because they are compulsory; the more revolutionary grumbler goes further, and objects to them because they are lectures. It must be admitted that both the lecturer and the lectured-to frequently find them a bore. One lecturer will stretch his conscience and shorten his lectures by beginning late and ending early, a method which would have had the approval of Charles Lamb; another will suggest a general *exodus* after the Janitor has paid his visit to the theatre. But the fact remains that lectures are compulsory, and at present there seems to be no indication of examining bodies becoming sufficiently enlightened to drop them. These examining bodies have been so obsessed with the importance of teaching us science, that it has not yet occurred to them to teach us scientifically.

So we must make the best of a bad job, and continue to attend lectures more for the purpose of the signing up than for their own sake. We should like to point out, however, that the examining bodies do not lay down any rigid programme of what shall be taught at lectures; otherwise, of course, the physiological disquisition on Women's Suffrage or Lynch Law would not be possible. Seriously, we believe that many lecturers would be only too glad to accommodate their lectures to the needs of the students, if they could only learn what those needs are. We invite correspondence from our readers on this question as to the ways in which lectures, especially clinical lectures, can be made most useful to students. Some experiments in this direction, we hear, have been successful, and if some such understanding could be arrived at, we feel sure it would be to the advantage of all concerned.

The Museum was aptly described by one of our lecturers the other day as a repository of "facts—dead, but not buried." Unfortunately, they are to all intents and purposes buried for the student unless they are adequately catalogued and numbered. We are glad, therefore, to hear that a new catalogue of the obstetric and gynæcological specimens is in the hands of the printers and is shortly to be published. The last catalogue was published, under the editorship of Sir Samuel Wilks, as long ago as 1863, so that it has become very out of date, and the

numbering of the specimens has been in a state of chaos.

We are asked by the Secretary of the Clubs' Union to remind old Guy's men that they should be sure to return the perforated pink slips to be found in the Clubs' Union Year Book, with notes of any change of address, appointments, distinctions and degrees gained. It will be recollected that this new feature in the Year Book was introduced last year, and its success so far has amply justified its continuation. The value and interest of the Blue Book have been greatly increased by these pages of biographical detail, but it is obvious that accuracy and completeness are particularly desirable, and members are therefore asked to do all in their power to secure these aims.

We should like to tender a few words of hearty welcome to Mr. Clive Carey, B.A., Mus. Bac., who has come to the hospital this winter as chapel organist, and as conductor of the Choral Society. Mr. Carey's association with music started at a very early age, when he was a chorister in the famous choir at King's College, Cambridge. When his voice "broke" he went to Sherborne School and acted there as deputy organist. From school he won the "Composition Scholarship" at the Royal College of Music, London, and an organ scholarship at Clare College, Cambridge, where he graduated in 1904, and also obtained his "Mus. Bac." degree. While at Cambridge he revived and conducted the Cambridge Orchestral Society, giving several excellent concerts. He also made a tremendous hit as Athene in Sophocles' "Eumenides," performed in the New Theatre early in 1905. Since "coming down" from the 'Varsity he has been studying chiefly vocal music for a long time under James Ley in London, and also under Jacques Isnardon in Paris, and Paresi in Florence. We heartily congratulate the Choral Society on having had the good fortune to obtain so brilliant a musician, and we wish both him and the Society every success.

The sad and unexpected death of Dr. Cooper, M.P. for Bermondsey, has necessitated a bye-election in this division, perhaps on the eve of a General Election, and at any rate in the midst of a political crisis. The whole country is alleged to be looking to Bermondsey—*i.e.*, to our friends of the District and the Front Surgery—for guidance on the great question of the hour. The electors of Bermondsey will show that they are determined to free the people from the tyranny of the Lords, and to save the country from the disastrous policy of Tariff Reform; they will also show that they are determined to uproot utterly the monster of Socialism, which is gnawing like a canker at the heart of the Empire, and to deliver the country from the suicidal system of Free Trade. All this and much more they will show. Certainly, our hospital patrons are to be important personages during the next few weeks.

The bye-election has a special interest for us in that one of the candidates is an old Guy's man. Dr. Alfred Salter, who is standing for the cause of Socialism as a representative of the Independent Labour Party, was at Guy's in 1890–1895, and had a particularly brilliant career here. He gained various scholarships and exhibitions, was House Physician and R.O., and held the Gull Research Studentship. He afterwards gained the Gold Medal in the London M.D., and obtained the Diploma of Public Health. He is well known as a practitioner in Bermondsey, and in public life he has served as a J.P., on the Borough Council, and on the L.C.C. as a representative of Bermondsey. His candidature cannot fail to interest greatly all Guy's men, whatever political views they may hold.

In the midst of the electioneering storm which is likely to rage round the hospital during the next few weeks, our Debating Society at Guy's is taking its share in the Budget controversy. At its first meeting for the season, to be held next Saturday evening, a former Secretary—Mr. F. E. Fremantle—will move, "That this House strongly disapproves of the present Budget as representing principles detrimental to the best interests of the nation." Mr. A. Sandison will oppose the motion. We should like here to record our appreciation of the services of Dr. Savage, who has lately retired

from the Presidency. For many years Dr. Savage has taken the chair at the opening meetings, ladies' nights and annual dinners of the Society, and by his unfailing good humour, his tact and experience in chairmanship, and his rare powers as a *raconteur*, he has delighted members and visitors on all occasions, and has done much to make the Society the popular institution it is. The officers of the Society received the notice of his resignation with great regret. They have, however, been fortunate in finding as his successor a very popular member of the Staff—Dr. Lauriston E. Shaw—who will take the chair at the meeting next Saturday. As a misconception sometimes exists in the minds of freshmen in regard to the Society, we would remind them that all members of the Clubs' Union are *ipso facto* members of the Debating Society, and as such are entitled to attend the meetings, to speak, and to vote.

There is another hospital Society which we should like to bring to the notice of new students, especially as it is not a constituent institution of the Clubs' Union, and therefore did not figure in our Students' Number. This is the Guy's Physiological Society, which has now existed for some years, and, under the presidency of Dr. Pembrey, seems to grow in numbers and prosperity each year. The meetings are held fortnightly, on Mondays, at 4 p.m., and at each meeting a paper on some subject of physiological interest is read. It is only right to say that considerable latitude is allowed in the interpretation of the word "physiological." The first ordinary meeting for this season will be held on Monday, October 25th. Any freshmen who desire further information about the Society should apply to its Secretary, Mr. Genge-Andrews.

At a recent Committee Meeting of the Guy's Hospital London University Club, certain important resolutions were passed. It was decided to convene an Extraordinary General Meeting of the Club in the Medical School Office Committee Room on Monday, November 8th, at 4.30 p.m. It was further resolved by the Committee that they should recommend the General Meeting to adopt two resolutions—one to abolish the entrance fee, and the second to change the date of the Annual Meeting and Dinner from the last week in January to some time in October or November in subsequent years. The Extraordinary General Meeting is being held in accordance with the wishes expressed at the last Annual General Meeting, and its deliberations will have to be confirmed at the next Annual General Meeting. These proposals are of interest, inasmuch as this Club is one of the chief dining clubs at the hospital; and as the number of London University men at Guy's is very considerable, any proposal facilitating entry into the Club should be popular. This winter the Annual Dinner will have to be held, as heretofore, in the last week of January, 1910. Messrs. Philip Turner and K. H. Digby are the Honorary Secretaries.

From the Gazette's Special Pathologist.

G.F.S., Kennington Road.—This material has the structure of a thickened uterine mucous membrane, the result of chronic endometritis. The glands are enlarged and tortuous, and the stroma is very vascular and of the usual cellular character. There is no evidence of a malignant growth.

G.E.H., Ramsgate.—*Microscopical Examination of the Centrifugalised Deposit.* — The deposit consists of an immense quantity of ropy pus, admixed with abundant bacteria and a few vesical cells. There are no crystals, and the detection of tube casts or renal elements is impossible. Tubercle bacilli have not been found.

F.C.C., Salisbury.—We find no evidence of any malignant growth in this specimen. Also there is no active inflammatory change to be seen; we presume the granulation tissue has been shaped off. The tissue sent is composed of dense fibrous tissue and fat with sweat glands. The fibrous tissue is such as would occur beneath an indolent ulcer.

PATHOLOGIST.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the Gazette *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

The Methods of Diagnosis of Diseases of the Urinary Organs.

CLINICAL LECTURE BY Mr. ROWLANDS.

Gentlemen,—The diagnosis of diseases of the urinary organs is beset with difficulties, and often requires very careful and systematic examinations. Orderly methods are essential to save time and to obtain accurate results in these cases, and the main object of this lecture is to lay stress upon these points. We may be led to suspect the existence of disease of these organs either from suggestive symptoms or signs, such as colic, hæmaturia, a tumour in the loin, or some pathological product discovered during the routine examination of the urine.

It is difficult to lay too much stress upon the importance of the careful routine examination of the urine in all patients, especially those about to undergo any operation. It is only in this way that such surgical catastrophies as diabetic and uræmic coma following the anæsthetic can be avoided. Moreover, the urine may contain pus, or even blood, without the knowledge of the patient, and without the existence of any symptoms suggestive of urinary disease. In such a case the discovery of the abnormality of the urine may be of vital importance, and may give the key to the diagnosis. When the attention has been specially directed to the urinary organs there are certain advantages in conducting the examinations in the following order in most cases :—

1. *The examination of the urine.*—(*a*) *Chemical examination for albumin, sugar, pus, and blood.* It is very important to examine (*b*) microscopically for pus and blood, and for crystals and casts. For this, centrifugulised deposit is essential. The microscope will often show pus or blood cells when the chemical tests are negative; therefore it should always be used. To avoid error, in women it is essential to procure catheter specimens, so as to exclude all vaginal discharges. I know of a patient who was thought to have had urinary disease on account of blood and pus in the urine, but the sequel showed that an epithelioma out of sight on the anterior wall of the vagina was the source of all the symptoms. (*c*) The specific gravity is important even in the absence of sugar, because a low one is a valuable indication of ascending nephritis and kidney deterioration in obstructive diseases lower down. (*d*) The amount of urine passed in twenty-four hours is worth ascertaining, and especially the amount of urea. For this examination the urine has to be collected and examined each day for three days, and the average daily amount of urea passed in twenty-four hours should be taken. If this be strikingly below the average of 400 to 500 grains per day on full diet, then there is either some disease of the kidneys or some serious impairment of the general health. Again and again I have found the estimation of the average urea to be of the greatest value, indicating unsuspected renal disease. In this matter clinical experience outweighs physiological experiment. It is believed that the main reason of the diminution of excretion is the lowered vitality which goes with serious kidney diseases. The patient, if unable to deal with proteid, eats or absorbs less. However that may be, it is a fact that the diminution of excretion of urea in an otherwise healthy person on full diet, itself indicates renal disease. It is interesting to notice how soon the urea increases after the removal of a diseased kidney. This is no doubt partly due to hypertrophy of the other one, but also to the improvement of the general health. The question of the propriety and extent of operation depends very largely upon the functional capacity of the kidneys, and the amount of urea is the best measure of this. (*e*) A bacteriological examination of the urine is frequently necessary. For this a catheter specimen is essential in women. In males, fairly reliable urine can be procured without a catheter, if the first issue carrying urethral germs be not collected. The importance of finding tubercle bacilli or the bacillus coli communis in the urine is obvious, and negative evidence is often useful. I remember several patients in whom the finding of the bacillus coli communis proved extremely valuable in the diagnosis, treatment, and prognosis. Occasionally a useful vaccine may be prepared from other bacteria less commonly found in the urine.

2. *Radiographic examination.*—It is well known that the X-rays are very reliable in finding stones. Both the positive and negative errors are becoming exceedingly rare in the practice of experts. This method, being harmless, should be used before resorting to more active measures, like cystoscopy and segregation, and a thorough examination must be made of the kidneys, both ureters, and bladder, and even of the prostate in certain cases. It is getting rarer for surgeons to find a stone when the X-ray report is negative, yet this does occasionally happen, and I have in three cases during the year found stones which were not

discovered by the Röntgen rays. One case was that of a man who was exceedingly stout, and had a small urate stone in the pelvis of the kidney. The other two were instances of stones in the bladder. In both of these the cystoscope showed a stone after the X-rays and the sound had failed to do so, even when used by careful observers. The opposite error is still more uncommon, although a surgeon does occasionally fail to find a stone after a positive X-ray report. Sometimes the stone has moved in the interval between the examination and operation, and at other times phleboliths or cretaceous glands have been mistaken for stones. Apart from stone, radiographic examination is valuable in showing enlargement of the kidney due to growth or pyo-nephrosis. I remember several cases of tuberculous disease in which the radiogram has proved valuable. In one case the shape of the kidney with its distended pelvis was well shown. With very large collections of pus or urine radiography needs careful interpretation, the very size of the opacity leading the radiographer to overlook it altogether sometimes.

3. *Cystoscopic Examination.*—In the absence of cystitis or hæmaturia, I make the patient hold the urine for about two hours, and thus examine without the need of washing out. A general anæsthetic is very rarely necessary, cocaine in five per cent. solution milked back along the urethra, proves quite sufficient. When flushing is required, I always use a child's silver evacuator, which has a large channel, is easily sterilised by boiling, and has a short beak of about the same size and shape as the cystoscope. I first collect some urine for bacteriological examination, taking care not to touch the end of the instrument, even with the gloved hands. In passing the catheter and the cystoscope any abnormal roughness of the urethra, or any stone in the prostatic channel, is easily recognised. In examining unusually sensitive bladders, I introduce about two drachms of a five per cent. solution of cocaine through the flushing apparatus, and this generally proves quite sufficient. In flushing, a note is made of the capacity of the bladder; an unusually small size often indicates growth, or chronic cystitis, generally of a tuberculous nature. When the cystoscope has been introduced, special attention is first paid to the trigone and ureteral orifices, for most diseases have a predilection for this region. It is necessary, however, to examine the whole surface. It is of great aid in identifying the ureteral apertures to inject subcutaneously a solution of sodium sulphindigotate. This begins to issue from the ureters after about fifteen or twenty minutes under normal circumstances. A diseased kidney does not excrete so much colouring matter, and takes a longer time to start. In many cases this method avoids the need of catheterising the ureters or segregation. This colour test is of special value in distinguishing other tumours in the loin from enlargements of the kidneys. For instance, in a case of hydatid disease in the right loin, the method served to distinguish it from hydronephrosis. In a child with an abnormal swelling in the loin, thought to be an enlarged kidney, the colouring matter appeared at the normal time at both ureteral orifices. There were no signs of caries of the spine in this child, so that the diagnosis was very obscure until the cystoscope cleared it up by excluding renal disease. The times of onset and the amounts of pigment issuing are valuable indications of the comparative functional capacities of the two kidneys.

4. *Segregation.*—In certain cases it is necessary to examine the secretions of the two kidneys separately, so that segregation or ureteral catheterisation must be done. The separated urines can be examined microscopically for pus, blood, growth cells and crystals, and bacteriologically for micro-organisms, and chemically for the amount of urea or albumin. I prefer to use the segregator for collecting the urine. It is much easier and less dangerous to use than the catheter, and if carefully used it is not likely to lead to error. It has the disadvantage of not being very easily introduced in some males without a general anæsthetic, which, if not ether, may check excretion. In all cases it is well to promote excretion by giving the patient at least a pint of strong fresh tea a few minutes before starting the examination. Of course it is essential to cystoscope the bladder first in order to exclude vesical disease, which might otherwise lead to danger as well as error. The best example that I can give off-hand of the value of the segregator is the one that I published in "The Operations of Surgery,' vol. ii., p. 160.

Change of Address.

E. C. Hughes, M.C. Cambridge, F.R.C.S. Eng., from 6 to 26, St. Thomas's Street, S.E.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

The Physical Society.

Opening Meeting

The opening meeting for the session was held after the Annual Dinner of the Society on Thursday, October 7th, in the Anatomy Theatre, Dr. Frederick Taylor in the chair.

After the minutes of the last meeting had been read and confirmed, the chairman announced that Dr. Pavy and Dr. Taylor had been elected Vice-Presidents of the Society, and that Mr. Rippmann had been elected Secretary. He then called upon Sir Hector Cameron to read his address on—

A PLEA FOR THE TREATMENT OF ABSCESS BY LISTER'S ANTISEPTIC METHOD.

Gentlemen,—I desire to thank you very warmly for the great honour which you have done me by inviting me to address you this evening. I know how inspiring is the history and how great are the traditions of your society, nor am I ignorant of the high standing of those who, by your invitation, have preceded me in the position I occupy to-night. Considerations like these make me distrustful of my ability to speak to you with the power and effect with which you have been addressed on many a former occasion. But my purpose, and I trust yours, will be served, if I contrive to arouse your interest in a matter which, in my opinion at all events, involves considerations of great practical moment.

I have chosen as the subject of my remarks the treatment of abscess in its various forms, because I feel, and have felt for a long time, that this is a part of surgical practice in which not only has no progress of any consequence been recently made, but actual retrogression has, in most quarters, taken place since Lister's early teaching and practice, now more than forty years old, demonstrated a great advance upon anything which had up to that time been dreamt of. The ideal he aimed at was to apply the principles of antiseptic treatment, with such alteration of details as was indicated in different circumstances, to the whole range and field of the surgeon's work; that is, alike to accidental wounds, to those made by the surgeon, and to all forms of abscess, whether chronic or acute. Of late years, however, it seems to me that surgeons have deemed it their duty to confine their attention as much as possible to the making and dressing of wounds, but to avoid contact with acute suppurations and abscesses, since these are now known to be all due to various forms of bacterial infection: the view being held that there is serious risk of transferring bacteria from them to the wounds which are constantly being made by an operator. On the other hand, the great length of time and the patience and unremitting care required in the treatment of large tubercular abscesses, *e.g.*, psoas abscesses originating in disease of the vertebral column, by opening and draining them upon strictly antiseptic principles and so securing a final closure of the sinus and the cure of the disease, seem to deter most hospital surgeons from making the attempt in any serious and conscientious manner. And yet all abscesses, whether they be acute or chronic, whether caused by pyogenic organisms or by the tubercle bacillus, are, to quote Lord Lister's own words, "a field for antiseptic surgery which yields very beautiful results, in striking contrast with those of former practice, and at the same time of great pathological interest." (The Collected Writings of Lord Lister, vol. ii., p. 346.)

First, then, let me speak to you of those large collections of fluid, due to the tubercular process in bone, which seem to be almost, if not quite, as fatal in their issue nowadays, as they were forty years ago. Prior to that time the free incision of such chronic or cold abscesses, as they were always called (for their tubercular character was not suspected), was greatly dreaded, for it was well known that such procedure was invariably followed in a few days by high fever, often accompanied by repeated rigors, by rapid wasting, and all the indications of very serious constitutional disturbance. If the patient survived this early burst of illness, he almost always perished later on, after a longer or shorter period of hectic fever, from one or other of the consequences of prolonged suppuration. Attempts were therefore made to lessen the size and tension of the abscess without admission of air, which was supposed to be the cause of the subsequent mischief. For this purpose the repeated use of the trocar and cannula, or the making of small valved incisions from time to time, was had recourse to. In these manœuvres the skin was pulled to one side, and after the trocar and cannula or knife had been used, and the abscess contents largely evacuated, the skin was allowed to slide back, so that the opening in the skin and that into the abscess cavity no longer corresponded with one another in position. The puncture so made was less likely to leak and to give rise to a permanent opening. By the occasional repetition of such interference it was hoped that some day the abscess would be reduced to such comparatively small dimensions as to admit of its being safely opened, for its great size and extent were regarded as one of the chief causes of the very serious consequences which followed upon its immediate evacuation. But when I tell you that the necessity for any special cleansing of the skin either of the patient's body or of the surgeon's hands, or of the instruments used, or of any material employed for wiping the little wound, or of the subsequent dressing (which usually consisted of a piece of adhesive plaster) was in no way recognised, you will not be incredulous when I add that these operations were constantly followed by serious illness, necessitating the free evacuation of the abscess without further delay. I have consulted the latest work on General Surgery for the use of students and others which has come into my hands, having been sent to me by its publishers, by reason, I presume, of my being a teacher, and I find in it the following instructions given for the treatment of psoas abscess: "It is difficult," the writer says, "to cure abscesses by incision where there is an inaccessible osteal focus. A psoas abscess is a

good example of a lesion of this character. In these cases the osteal focus keeps up a continuous secretion and after the evacuation of the contents of the abscess a fistula forms which it is often difficult to protect from secondary pyogenic infections. These secondary infections aggravate both the local and general conditions, and, therefore, incision of gravitation abscesses should be attempted only after the treatment by aspiration has been tried without success. Large syringes and cannulæ should be used in aspirating cold abscesses, for the pus contains numerous fragments of tissue and flakes of fibrin. If these occlude the cannula an attempt should be made to remove them with a wire or fine probe. The cannula should be inserted obliquely through the skin and soft tissues, so that the edges of the wound will agglutinate rapidly when the cannula is removed. The formation of a fistula may be prevented in this way. For the same reason it is recommended that a small incision be made before the insertion of very large cannulæ."

This teaching, which you will observe it is hard to distinguish from that of fifty years ago, except perhaps that it is assumed that the skin and instruments will be previously sterilized, is the treatment recommended in a recent and otherwise excellent text-book. So far as any mention of Lister's teaching on the subject is concerned, he may never have lived; and yet, when first practised, I venture to say that no part of his method of antiseptic treatment excited greater wonder, or gave surer promise of the saving of many human lives, than that which dealt with such abscesses. It is true that the writer from whom I have just quoted also recommends the injection into the cavity of iodoform emulsion in addition to the repeated tapping; and also into any suppurating sinus which may persist after a mixed infection has been established. I can only say, both from my own experience and from what I have learned of the practice of others, that such injections seldom, if ever, result in permanent cure of such large abscesses and their subsequent long and tortuous sinuses.

It is, however, interesting to remember that a psoas abscess the result of osseous caries, every now and again, when entirely uninterfered with, becomes slowly absorbed and disappears, the patient being restored to satisfactory health. Pathologists sometimes find, in the course of making post-mortem examinations of the bodies of persons who have died in the latter part of life, residues of former abscesses—calcareous or greasy as the case may be—in the sheaths of destroyed psoas muscles, with evidences of healed tubercular lesions in lumbar or dorsal vertebræ. The disease has probably occurred during childhood or youth, and the formation of abscess in connection with it may have been entirely unknown and unsuspected.

I may here refer to two cases of the natural and permanent cure of such abscesses which have occurred in my own experience. Thirteen years ago I was asked to operate, in the case of a girl somewhat under twenty years of age, for psoas abscess, causing a visible swelling above and below Poupart's ligament. As there was considerable flexion of the thigh, I confined her to bed, and, in the first instance, applied extension to the limb with weight and pulley. Very soon the flexion began to yield and, what was not in any way anticipated, the abscess began to slacken in tension and diminish in size. The recumbent posture was strictly maintained for ten months, but long ere that time all evidence of the abscess had disappeared, while the patient had increased in weight and gained much in general health. On once more assuming the erect posture she used a poroplastic jacket, and its use was continued for two years. I wrote to her doctor a few weeks ago, inquiring as to her present condition, and in his reply he states that since the treatment by the recumbent position and the subsequent use of the spinal support, "she has been able to do everything in the way of strenuous exercise, as riding, cycling, tennis, etc. so that I have seldom required to see her."

My other patient was the sister of a medical man who sent her to consult me somewhat more than twenty-five years ago. She was thirty-two years of age, and suffered from a large psoas abscess. She had experienced for several years pain and weakness in the lumbar spine, but the swelling in the abdomen and thigh had only been observed during the previous six months. I was disposed to advise that the abscess should be opened and drained with the usual antiseptic precautions, while the patient was confined to the horizontal posture, frankly explaining, however, that such treatment must be maintained for many months. She hesitated to follow my advice at once, as her father was an old man, and her sense of filial duty made her unwilling at the time to leave home. As the abscess was by no means very tense, it was agreed that, meantime, operation should be postponed, that she should take as much rest as possible, and, when erect, should wear a poroplastic jacket. The result was that no operation was ever required, the lady being still alive and in the enjoyment of good health. As I had not heard of her for many years, I recently addressed some inquiries regarding her to her brother, and from his reply I will read a few sentences. "So far as I can gather, it is about twenty-five years since you first saw my sister. The swelling had been present for at least six months, but she had been ailing for years before that. You advised that operation should be postponed, as the tumour was soft and slow of development. When you next saw her, after an interval of many months, the lessening in the size of the swelling was so marked that you again postponed interference. In something like six months more it had disappeared, and has never given us the least concern about its return. She got gradually stronger, and, although not robust, has always been quite well. All she has ever complained of has been the need for more rest than my other sisters seemed to require. The eleventh dorsal spine is distinctly prominent, and this was noticed when you originally saw her. She wore a poroplastic jacket for years, and, among other medicines, took calcium sulphide for a long time. I have always thought her case a very remarkable one."

Unfortunately occurrences like these are so rare that we can only regard them as exceptions which prove the rule, that almost all fluid collections of the sort tend ultimately to point and to burst, even although this, in some instances, may be delayed for very many years. Such occasional natural cures of the disease as I have cited, however, serve to confirm us in our knowledge—if confirmation, indeed, be still needed—that if we succeed in evacuating and draining such abscesses, while we prevent all access of sepsis from without, Nature is quite able to heal the bone lesion without any direct operative interference on our part with the affected vertebra or vertebræ. Such interference is wholly unnecessary, nay, is almost certain to be seriously harmful. I have had a very large experience of guiding cases of this kind to a permanently successful issue by means of the simple, if necessarily prolonged, treatment advised and always followed by Lord Lister till his retirement from practice. I could produce a fairly long list of cases thus treated during the last thirty-five or forty years who are now well and leading useful and active lives in different parts of the world. But it will suffice, perhaps, to show you the permanent character of such cures if I refer shortly to two instances of them, which had quite passed out of my recollection, until recalled lately by my accidentally hearing of and communicating with both of them. One was the case of a young and then recently married lady upon whom I operated in the beginning of March, 1892. The abscess was a large one, but there was no appreciable spinal curvature. Pain in the lumbar spine had been troublesome, however, for eighteen months previously, and had been attributed to other than its real cause. On the 26th of the same month she was conveyed by an ambulance waggon from the Nursing Home in Glasgow, where I had hitherto treated her, to a house in the country within easy reach. The exudation from the abscess cavity was then slight in amount and serous in character. From that time the treatment was continued with scrupulous care by a young medical practitioner, who had hitherto co-operated with me in the case. Extracts from a diary kept by her husband, and sent to me, show that on 28th December she was allowed to leave bed and recline on the sofa for a little for the first time. On 21st February, 1893, she was allowed to walk to the dining-room from her bedroom, and on 5th April went out to drive. Her convalescence after that date was uninterrupted. In a letter recently received from her, she writes:—"For about two years after my operation I was troubled with abscesses in my neck, but since then have gradually got stronger, and now enjoy wonderfully good health, though at times I still feel pain and weakness in my back." I may add that her life has been spent in fairly easy circumstances, and that she has had no family.

The other patient to whom I have referred was a young woman, æt. 22, with a psoas abscess on the right side, which, although its contents were found, after evacuation, to measure nearly thirty ounces, was only observed by the patient shortly before I was consulted. She qualified some years after recovery as a nurse, and now holds a responsible position, I believe, in a hospital in South Africa. Hearing that she was in this country on leave, I wrote her in August last, making certain inquiries regarding the facts of her case, and I shall read a short extract from a letter I received in reply. She writes:—"You operated upon me in May, 1886, when I was twenty-two years old. For eighteen months I had suffered from pain in the back and down the right leg, but this has never been felt since the operation was performed. There was a projection of the spine of the first lumbar vertebra, which still exists, but the swelling in front I only noticed about a month before you were consulted. I was confined to bed for ten months, although the wound was healed at the end of the ninth month. In 1895 I started nursing in St. Bartholomew's Hospital in London. At the end of three years I had a pleurisy with high temperature, and was under treatment for six weeks. I was then advised to spend my winters in Switzerland. This I did for six years, coming back to engage in nursing each summer. Then, six years ago, I went out to South Africa, where I have since worked exceptionally hard all the time at nursing."

These two cases are typical instances of serious disease of the spine in young adults accompanied by the formation of very large abscesses, which were conducted to a successful issue, without fever or other indication of constitutional disturbance. Moreover, so permanent have these results been that both patients, seventeen and twenty-two years afterwards respectively, enjoy good health and are equal to all their duties. That other manifestations of tubercle should subsequently have been exhibited by both patients respectively in cervical glands and in pleura, is only another indication of the very familiar clinical fact of how persistent the tubercular infection is apt to be in a body in which it has once gained a footing. From time to time I have varied the treatment as originally practised, when suggestions promising to shorten the convalescence have been made. Thus, after incision I have scraped out the cavity as thoroughly as possible with the flushing-spoon, using some sterile, but not very stimulating, fluid for the purpose. I have also injected iodoform emulsion in glycerine in many cases. The result has been to make me adhere more confidently than ever to Lister's original plan of simple incision and drainage, combined with most scrupulous and systematized antiseptic precautions. Before making the incision, the skin over a very wide area around the spot chosen must be thoroughly acted upon for at least half an hour by lint, saturated with a 5 per cent. solution of carbolic acid, lying in accurate contact with it. After evacuation a rubber drainage tube of convenient length, previously steeped for a considerable time in the same solution, is introduced, and it need only be withdrawn and cleaned in the further progress of the case when it becomes obstructed by caseous material. Its use may be discarded when the serous exudation becomes trifling in amount. The widely overlapping dressing, composed latterly of the double cyanide of zinc and mercury gauze, is retained in its place, not only by some rolls of ordinary bandage, but also

by elastic bandage so arranged in each case as to maintain the margin of the dressing in close contact with the skin, even during movements of the patient. The antiseptic gauze is changed at intervals of time, determined by the amount of exudation, with all the same care that was exercised on the occasion of evacuating the abscess. When the dressing is being changed it is well to cover the wound with a small piece of lint or gauze wet with the carbolic solution, while the surrounding skin is thoroughly cleansed with other similar pieces, this temporary covering or guard being removed before the fresh dressing is applied. The treatment must be continued until the final and absolute closure of the sinus, no matter how long delayed, while the patient must be kept constantly recumbent, to give due rest to that part of the spine in which the tuberculous process has originated. If sepsis invades the sinus, even months after the abscess has been opened, and a mixed infection is produced, the case may generally be regarded as hopeless. No treatment can then be relied on to undo the mischief produced or avert the fatal issue to follow sooner or later. On the other hand, if septic contamination is avoided no suppuration will occur, but only a serous exudation, diminishing as time goes on, while the patient continues free from fever and steadily increases in weight. Under such circumstances a complete and permanent recovery may be expected. The injection of iodoform emulsion, which is often so very successful in cases of limited and accessible tubercle as in early tuberculosis of joints, in small tubercular abscesses of the soft parts, in dactylitis, in diseases of the bones of the carpus, metacarpus, tarsus, metatarsus and the like, is futile, as I have said, in the treatment of large abscesses connected with bones and joints. I have already expressed regret that the advantages of careful antiseptic drainage of these great tuberculous collections have not been sufficiently appreciated by the majority of surgeons. This is probably due to discouragement caused by failure to maintain the aseptic state in the course of the long period during which such cases must be conscientiously attended to, whether in hospital or in their own homes. Yet the dressing is a matter of extreme simplicity, and, when the first few days have passed, may be safely entrusted to a dresser, who has been duly impressed with its vital importance. To discharge such patients before healing is complete, merely because they have been long in hospital and the serous discharge has become scanty, is surely not justifiable. If admitted at all, they must be treated throughout with the same care until they are healed. If failure to exclude septic mischief occurs, evidenced, as it will be, by the supervention of hectic fever and the discharge of pus from the sinus, no reason longer exists for keeping such a patient in hospital. His fate is probably sealed, no matter when or how he may be treated. Some such patients, it is true, may continue to live with a discharging sinus for not a few years, varying in their condition of health from time to time, but, with the most rare exceptions, an unfavourable issue is the result. The so-called vaccine treatment, evolved from the beautiful researches of Sir Almroth Wright, has been of late, one must not forget, credited with the cure of some such otherwise hopeless cases. If this raises a better prospect for such patients in the future, only the future can determine how much reliance may be placed upon it.

While I say all this, I would not for a moment desire to represent that such an exercise of the surgical art as the successful emptying and drainage, throughout many months, of a large tubercular abscess without the mishap of introducing, on some occasion, the causes of sepsis, is one which is very easy of accomplishment. The surgical technique required is, indeed, in no way difficult; but it is always hard to maintain, during a protracted period of time, that constant sense of the necessity for extreme care and conscientious regard of antiseptic details without which mischief is almost certain to occur before the case is concluded. To secure the best chance of a good result it is almost necessary, therefore, that each case should be dealt with, from first to last, if not by the same person, certainly with as few changes of dresser as possible. Too many cooks in this, as in many other matters, are apt to spoil the broth. The sense of individual responsibility is a great safeguard when a long continuity of unvarying and, in that sense, monotonous duty must be maintained.

It is always a matter of difficulty to determine when dressings may be safely discontinued. When all serous exudation has for some time entirely ceased, and a fine probe can no longer be made to enter the sinus, but not till then, the dressing may be stopped. A few weeks more should elapse before the patient is allowed to assume the erect posture, and it is well, perhaps, to advise the use, for some time afterwards, of an artificial support, such as a light poroplastic jacket. But, with all our care, relapse may occur in a few weeks or months on account of the orifice of the sinus having firmly closed before the deeper parts have been finally obliterated throughout. When this happens (and it very seldom does), no matter what disappointment may ensue, the patient must again be laid down and, the collection of fluid having been opened with all the precautions formerly employed, the same treatment must be resumed. I may here refer to the circumstances of such a case, which occurred in the practice of Lord Lister, when he was Professor of Clinical Surgery in Edinburgh. These happen to illustrate alike the very prolonged character of the treatment sometimes required, the difficulty of being quite sure, in a given case, when that period of treatment has reached its termination, and, lastly, the permanent character of the result. The patient, now well advanced in life, enjoys such a measure of good health as to make him equal to all the duties which are required of the manager of an important life insurance company. He has kindly written to me a short account of his health history since his first illness, and its interest is such that I make no excuse for reading you the greater part of his letter.

"As nearly as I can remember," he writes, "it is thirty-six years ago since Lord Lister operated on me. I was about eighteen years of age. I afterwards lay in bed, never lifting my shoulders from the bed for one year and eleven months. The wound took only a week or two short of this to heal. For the last six or nine months the dressing was just stained, and no more. It was changed, during the greater part of the time, twice a week and latterly only once a week. After a lapse of three or four months, I think, after apparent recovery, the swelling returned, although very much smaller than the original one, and was reopened. It then took, I think, eleven months to heal. I continued in indifferent health, although at business, for some six or seven years afterwards, when I had a voyage of eleven months, which seemed to set me up. I then returned to business and enjoyed good health for seventeen or eighteen years. I then took laryngitis, contracted, I believe, through the room in my office being badly ventilated and getting over-heated. This I suffered from for about eight or nine months. During this period I was working in a mission during my spare hours, addressing meetings and visiting among poor families. Among them there were no fewer than four persons—living in houses of one room and of one room and kitchen—who were suffering from phthisis in advanced stages, and all four of whom died. From these I caught infection in my throat and also in my right lung. I went to a sanatorium in the South of England, and in a year I returned, the disease having completely disappeared. For the last five years I have been back at business, and, with the exception of a short illness due to an attack of influenza, have never been a day off work. Living as I do in the country, and travelling daily to Glasgow, each day of work is a long one. I leave home at 8.15 a.m. and return at 6 p.m., but live as much as possible in the open air."

Here we have shortly the health history of a man from the time he was eighteen until he reached fifty-four years of age. Twice he suffered from tubercular disease in inaccessible situations of the body. These attacks, separated from one another by an interval of twenty-nine years or thereby, would each have been regarded, a generation or two ago, as of very hopeless character. Yet by methods of practice, suggested in the lifetime of many of us, this man has been cured of both, if indeed we are entitled, under any circumstances, to speak of the "cure" of tubercular disease. Upon such improvements in practice we have good cause to congratulate ourselves. On both occasions of illness, however, the patient had to be submitted to prolonged periods of treatment. No wise physician will offer that fact, in the present state of our knowledge and resources, as an objection to the treatment of phthisis by life in a sanatorium, and I would suggest to my surgical colleagues that it should as little be regarded by them as a reason for declining to undertake the irksome because prolonged personal treatment of psoas abscess by systematic antiseptic dressing. The failures to maintain asepsis from first to last will be few in the experience of anyone who will be content to follow out scrupulously the detailed precautions long ago insisted upon by Lister, in spite of the fact that a jealous watchfulness must, in each case, be exercised over a period of time unknown in the treatment of the ordinary wounds of surgery.

The case which I have just narrated was under treatment on account of his spinal disease and its consequences for about two years and ten months, but this is entirely exceptional. The duration of treatment in my cases has varied from eight to eighteen months. It is not easy to guess why such differences should exist. They are certainly not due to the varying size of the abscesses, but probably to the varying degrees of the mischief wrought in the bone by the tubercular process. In proportion to the amount of bare and necrosed bone present no doubt will be the duration of the process of repair of the lesion. Sequestra must be got rid of either by separation or absorption, and when they are present, even though very small, a tedious course is what one would anticipate. When the abscess is originally evacuated, if the fingers are made to grope and feel amongst the discharge, they will often detect, in the bottom of the vessel, a quantity of bony débris like rough sand, some pieces occasionally being of quite appreciable size. These may continue from time to time during the treatment of the case to be extruded from the sinus. The appearance of such necrosed spicules, however, even months after treatment has been commenced, is no unfavourable indication and need cause no sense of discouragement. On one occasion I extracted from the orifice of the sinus in the thigh a spicule of bone after all exudation had ceased, and quite shortly before the sinus completely and permanently closed. At that time I have little doubt that the bone lesion was fully repaired. Clearly the bone fragment had long previously parted from the vertebra, and its voyage to the thigh had been tedious and subject to frequent interruption, healing going on all the time satisfactorily in its rear. It is not often, probably, that sequestra of any considerable size are present in the first instance in the bodies of tubercular vertebræ. When they are, their presence no doubt will prolong the period during which exudation will continue, but they will not prevent the final successful issue of the case. The fairly large pieces of dead bone which are sometimes found in the vertebræ of persons who have died as a result of psoas abscess are, in all likelihood, more due to the effects of sepsis than to those of the pure and unmixed tubercular infection.

I have mentioned as an occasional, but fortunately transient, disappointment in the treatment of these abscesses the fact that sometimes what seems to be a satisfactory closure of the sinus turns out to be only a comparatively superficial one, and a fluctuating swelling again shows itself in a few weeks or months. But it must not be forgotten that, as pointed out by Paget in his essay entitled "Residual Abscess," we may have a real recrudescence of the disease years after all local trouble has ceased and the patient has been restored to

good health. This name of residual abscess was given by Paget to "all abscesses found in and about the residues of former inflammations." We know now that this late recurrence, when it takes place, must be attributed rather to the re-awakened activity of latent germs than to any residual products of former attacks of the disease. The occurrence is observed in the case of other than tubercular abscesses. It is equally illustrated occasionally by the behaviour of abscesses dependent upon staphylococcic, typhoid, and perhaps other infections. In only one of my patients affected with abscess due to spinal disease have I had any such experience. In 1874 I opened a large lumbar abscess in a young and then unmarried woman, who had an angular dorsal curvature of the spine, and treated her in the way I have described. In eight or nine months her recovery was complete. Seven years afterwards, however, she again came under my care in hospital, stating that she had been in excellent health up to a month or two previously, when another swelling was observed in the same position as formerly. Again she was similarly treated, and again, after several months, was discharged soundly healed and feeling well. I had entirely forgotten this patient, when I received a letter from her in 1902, dated from Melbourne, Australia. In it she says: "You will, no doubt, be surprised to receive a letter from me from such a distance, and so I must introduce myself as an old patient of yours as far back as 1874 and 1881. My object in writing you is to let you know that from 1881 till now I have had no further illness. I married and have had five children. They have all been healthy and robust up to eighteen months ago, when my eldest boy, just turned ten years, began to limp and complain of pain in one leg. He had a psoas abscess in the thigh, and later on a lumbar abscess in exactly the same place as myself. I thought you might be interested to know that, after all these years, the same thing should be repeated in my son as in my own case." I have never learned the fate of her son, but it was gratifying to hear of her own good health twenty-eight years after the original abscess, and twenty-one years after its residual successor had been satisfactorily dealt with by antiseptic treatment.

If the frequent disappointment, following upon failure to maintain the aseptic condition in such abscesses during the long period of dressing necessary, has deterred surgeons from systematically following out this plan of treatment, the widely accepted use of dressings sterilized by heat and containing in their own substance no chemical antiseptic has led to the same result so far as the antiseptic treatment of acute abscesses is concerned. It is not, perhaps, generally known that Lister himself was the first person to employ a dressing sterilized by heat. This he did during the Edinburgh period of his life, and I have often heard him say that he did not persist in the practice mainly because he felt that to use dressings which contained no antiseptic material, in such cases as empyemata and large abscesses, was to run a most serious risk of failure, since the fluid exuded for some little time after evacuation must always be considerable in quantity. Another cause of the comparative personal neglect of cases of acute suppuration is no doubt the fear, which is sometimes felt, of contamination of aseptic incised wounds by the transference of organisms from one to the other, if both be treated by the same hands and in the same wards. Viewed as dangerous to surgical practice generally, they are kept, as far as possible, in isolation, and, for the most part, treated as of old by free openings and counter-openings, tents of sterile gauze perhaps impregnated with iodoform, while they are frequently syringed out with sterile water or weak antiseptic lotions, and covered with sterilized gauze. With such treatment suppuration and fever persist with varying degree until the wounds become superficial, if such a fortunate issue be reached. My experience has taught me that the fear of infection of incised wounds by abscesses of whatever nature, treated in the same wards and by the same surgeon, is absolutely groundless under antiseptic management. For in them, too, a merely serous discharge soon follows antiseptic evacuation and drainage just as in the chronic cases, but instead of the protracted course commonly followed by the latter, complete healing usually occurs with much rapidity, the micrococci which abound in and around the abscess wall being disposed of by the anti-bacteric power of the living organism, when the disturbing influence of the pent-up pus is removed and prevented from recurring, while contamination from without is precluded. Washing out of the cavity is alike unnecessary and undesirable. If no such systematic and regulated antiseptic treatment be adopted, contamination from without ensues, fever and pain are maintained, the suppurative process continues, and the necessity for making counter-openings repeatedly arises. Under such circumstances patients frequently succumb, for acute abscess of large size is a condition never free of risk. Indeed, it is a not uncommon late episode in the case of patients already weakened by serious disease. Thus, I have treated many grave abscesses, arising both in the soft parts and in important joints, in patients who seemed to be approaching convalescence after dangerous and debilitating attacks of enteric fever, pneumonia, and the like, as well as after parturition. In such circumstances the fact that one can often put a stop quickly and permanently to suppuration and high fever, makes it possible to save many lives which would otherwise be probably sacrificed. This was one of the lessons taught us when antiseptic treatment was first introduced, which seems to have been greatly forgotten. Let me instance only one example of the many which I might cite in proof of this statement.

In his article on "The Principles of Antiseptic Surgery" in the "Virchow-Festschrift, 1891" (The Collected Writings of Lord Lister, vol. ii., p. 340), when speaking of suppuration of the mammary gland during lactation, Lister wrote: "Here, under the old system of poulticing, protracted suppuration followed the evacuation of the abscess, and, in spite of free incision, sinuses

often remained which could only be cured by laying them open throughout their extent. Under antiseptic management, the abscess being emptied by a puncture sufficient to admit a drainage tube, nothing but bloody serum is found next day upon the dressing, the serous discharge diminishes rapidly and healing is complete in a very few days, sinus of the mamma being a thing unknown." The truth of this statement is one which any practitioner may verify for himself—yet I still see, both in hospital and private practice, breasts traversed from side to side by mammary sinuses, from the orifices of which suppuration indefinitely continues. Not only is such a condition painful and depleting in itself, but it is not wholly destitute of risk. At the best, after recovery, the mamma is left more or less adherent to the skin and pectoral fascia, greatly deformed in shape, and too often becomes the seat of cancer when the cancer age is reached. Even more immediately grave results follow constantly upon the evacuation of other familiar forms of acute suppuration, if unaccompanied by any treatment which offers security against the introduction of worse mischief from without.

It is because of considerations like these and others which I have mentioned that I determined to direct your attention to this subject when you did me the great honour of asking me to deliver this lecture.

Most surgeons of the present day, treating as they do ordinary incised wounds with aseptic dressings, have largely given up the antiseptic method of dealing with abscesses, but have failed to put anything equally effective in its place. I plead for a return, in this department of surgical work at least, to the treatment originally recommended by Lister. I know from abundant experience that it is capable of preventing much pain, distress and fever, as well as of preserving many lives, which now perish under less satisfactory management.

Dr. Taylor, in proposing a vote of thanks to Sir Hector Cameron, spoke of the advantages of membership of the Guy's Physical Society. It helped to train its members in the valuable art of elocution, and enabled them to air their observations and theories—especially the latter—away from their perhaps too dogmatic teachers. He himself, forty years ago, had read a paper in which he proposed to *elucidate* the subject of dropsy! Alas, the subject is still far from being clear. Further, the Physical Society gave one an annual opportunity of listening to an address from a distinguished speaker, whose experience in his particular subject was greater than ours. As a mere physician, Dr. Taylor said he would not presume to discuss the subject which Sir Hector Cameron had travelled from the remote north to inform us about, but it could not fail to be of interest alike to those who had surgical tendencies and also to the more medically inclined. He then recalled the old days, before Lister's method became general, when the treatment of abscesses consisted in plunging a knife into them, taking care only that the swelling was not an aneurysm. Mr. Bryant was the first to employ Lister's carbolic oil at Guy's. Afterwards Sir Henry Howse travelled to Edinburgh to study Lister's *technique*, and he brought back with him the carbolic spray, an instrument which had a good deal of abuse showered down upon it when newer and simpler methods took the field. With a hearty vote of thanks to Sir Hector Cameron, Dr. Taylor said he would like to combine his congratulations on the recent marriage of Dr. H. C. Cameron.

Sir Hector Cameron then briefly replied.

Mr. F. Cook proposed, and Dr. Vaughan Pendred seconded, a vote of thanks to Dr. Taylor for taking the chair.

Dr. Taylor, replying, said how he valued the Physical Society. He had been for several years its secretary, and now was pleased to be in office again as a Vice-President. He knew that members would like to hear from him something about their venerable and honoured President, Sir Samuel Wilks. He had called on Sir Samuel recently, and found him busily employed in writing, perfectly well in health, exhibiting to the full his well-known powers of conversation, and showing his unabated interest in his profession and in Guy's Hospital.

The meeting then adjourned, and the members inspected the books, instruments, etc., which were exhibited by various firms in the Gordon Museum.

Appointments.

Medical School Appointments.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants in Medical Wards.—Messrs. F. Kahlenberg (Dr. Hale White); C. E. Reckitt (Dr. Pitt); F. S. D. Berry (Sir C. Perry); J. H. Owen (Dr. Shaw).

Ophthalmic Dressers.—Messrs. F. D. Saner, J. G. Saner (Mr. Eason); C. C. Tudge, E. Billing (Mr. Ormond) (November 1st); H. Gardiner, A. Neville Cox (Mr. Eason); K. T. Khong, W. L. Hibbert, (Mr. Ormond) (December 16th).

Surgeons' Dressers.—Messrs. H. W. Barber, A. M. Bodkin, H. T. Depree, H. L. James, J. M. Jarvie, B. Blackwood (Mr. Symonds); L. C. D. Irvine, G. Alan Blake, H. H. Davis, A. H. Gool, C. M. Ryley, W. P. Vicary (Mr. Lane); A. L. Gardner, H. G. B. Blackman, G. T. Mullally, G. R. Hind, C. D. Killpack, J. H. Campain (Mr. Dunn); W. E. Levinson, J. A. Delmege, T. S. Sharpley, G. C. Lowe, H. V. Leigh, L. C. W. Cane (Sir A. Fripp).

Obstetric Dressers.—Messrs. G. B. Cockrem, W. E. Fox, J. A. Edmond (Mr. Targett); E. A. Penny, G. Y. Thomson, R. Stout (Mr. G. B. Smith) (November-December).

Externs.—Messrs. G. E. W. Lacey, T. D. M. Stout, A. Neville Cox, H. Gardiner (November); G. Dunderdale, G. Maxted, T. T. O'Callaghan (December); G. B. Cockrem, W. E. Fox, E. P. Poulton, A. Stanley Roe, H. F. Stephens (January).

Correspondence.

To the Editor of Guy's Hospital Gazette.

Certificates for Residents.

Dear Sir,—It is generally thought that the experience gained by a student in holding a hospital appointment is sufficient recompense for the services rendered.

However, I agree with R. M. O. that some recognition might be given to the resident staff upon completion of their appointments, provided the work has been satisfactorily done, as is almost invariably the case. A letter of thanks from the Treasurer on behalf of the Governors and Staff would be a graceful acknowledgment, and would be more highly appreciated than the personal thanks of the Physician or Surgeon in charge.

I trust the authorities at Guy's will not grant certificates to resident officers. It seems to me these documents would be useless unless displayed, say in the consulting rooms, and this course of action might not be approved of by one's *confrères*, or by some members of the public.

It is right to notify these appointments in the Medical Directory.—Yours faithfully,

7th October, 1909. ONE OF THE STAFF.

Post as Skiagraphic Assistant Wanted.

Sir,—Will you allow us, through the medium of the Gazette, to call your attention to the case of an ex-employé of the hospital?

Mr. A. A. Clark was for nine years assistant to Dr. Shenton in the Skiagraphic Department, and his health failing he has been required to resign. A three months' rest has restored him to health, but he is left without employment. He is quite capable of accepting the position of assistant to any medical man who is doing skiagraphic work, and has excellent testimonials from the Hospital and Officers.

If through this appeal a situation should be offered him, we shall be greatly pleased. In the meantime may we suggest that a subscription list be opened to help him for the present, and to give him a start in some fresh line of commercial activity, should no position in his own sphere be available. We shall be pleased to receive any amounts, and to acknowledge the same through these pages.—I am, Sir, yours faithfully,

EDWARD W. H. SHENTON,
W. ARBUTHNOT LANE.

[In view of the great increase in the number of X-ray installations throughout the country, there should be no difficulty in finding employment for a thoroughly competent skiagraphic assistant such as Mr. Clark proved himself, while at the hospital, to be. As the work is of a special and technical character, it would be a pity if he were compelled to abandon it for some other employment.

We should be very glad to hear from any old Guy's man who knows of any vacant post of this kind, or who is on the staff of a hospital where an X-ray assistant is required.

Meanwhile, we would support the appeal for financial assistance to enable Clark, who is a married man, and at present without means of support, to tide over the period of unemployment. Subscriptions with this object in view may be addressed to the Gazette Office, Guy's Hospital, S.E., and will be duly acknowledged in these columns.—Ed.]

Pass List.

First Conjoint Examination, Sept., 1909.

Part I.—Chemistry. Part II.—Physics.

†P. R. Chevreau. P. J. F. L. Rathier du Vergé.

† Passed in Part II. only.

Preliminary Science Examination (L.D.S.), September, 1909.

Part I.—Chemistry. Part II.—Physics.

R. L. Donn. L. T. Montgomery.

Papers by Guy's Men.

Myer Coplans, M.D. Lond., D.P.H. Camb.:—

On the Selective Action of Preservatives (Joint Paper with Professor Grünbaum).—Health Congress, Leeds, 1909.

Correlated Immunity between Enterica and Scarlet Fever.—Health Congress, Leeds, 1909.

Apparatus for the Rapid Preparation of Potable Water.—Health Congress, Leeds, 1909.

Factors Influencing the Growth of Micro-organisms: Latency, Mass Action, Inhibition.—*Journal of Pathology and Bacteriology.*

Kenneth W. Goadby, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Cantab.: A Note on the Pathology of Lead Poisoning.—*The Lancet*, 2nd October, 1909.

H. T. Hicks, F.R.C.S. Eng.: Pelvic Pain apart from Obvious Lesions.—*The Practitioner*, October, 1909.

Captain A. J. Hull, R.A.M.C.: The Treatment of Multiple Abscess of the Liver.—*Journal of the Royal Army Medical Corps*, October, 1909.

Major C. E. Pollock, R.A.M.C.: Treatment of Gonorrhœa in Malta.—*Ibid.*

F. J. Steward, M.S. Lond., F.R.C.S. Eng.: A Note on Formalin Iodine Catgut.—*British Medical Journal*, 2nd October, 1909.

Heroic Treatment.*

The last days of Charles II. are of interest from many points of view. To the historian, the evidence relating to the King's death-bed conversion or return to the Church of Rome is of prime importance; to the ordinary reader the purely human interest of a wicked man's brave composure and *bonhomie*, even in face of death, and of the poor Queen's devotion to one who had been so faithless to her, makes its appeal; and to the medical man, the clinical history of that last illness, and the accounts given of all that the dying monarch suffered at the hands of his physicians in the way of treatment, are matters of interest.

"Of late years," says Dr. Crawfurd, in his preface, "much of the history of medicine has been written; the medicine of history still remains an almost unturned soil." We owe this interesting essay in the medicine of history to the enforced leisure of an illness, during which it occurred to Dr. Crawfurd to re-examine and digest, in spite of Macaulay's warning as to its indigestibility, the evidence relating to Charles II.'s death. The book before us contains a plain and straightforward narrative, compiled from various sources, of the last few days of the King's life, a transcript and translation of Sir Charles Scarburgh's MS. account (in Latin) of the illness, together with the author's reasons for regarding the death as due to chronic granular kidney, ending in uræmia, and not to apoplexy, as the historians have always stated, following Macaulay and the pronouncement of Sir Henry Halford, speaking from the "serene seclusion of the presidential chair" at the College of Physicians.

Dr. Crawfurd's contentions are, briefly, that Charles had lived just the sort of life to favour a diagnosis of granular kidney; the initial and subsequent attacks of convulsions were, as far as can be judged from the accounts, uræmic; the autopsy, as far as it went, supported the theory of renal disease. It should be noted that the term "apoplexy," as used at that time, embraced all sudden seizures of convulsive or paralytic type, and was not confined to cerebral hæmorrhages, so that, although it may have been correct at one time to speak of Charles' fit as an apoplexy, it is so no longer. Against the diagnosis of cerebral hæmorrhage are the mode of onset, and the fact that the King's mind remained, to a large extent, unclouded to the end. The third possibility—that death was due to poisoning—was, indeed, not improbable in an age of intrigue; but it was an age of unfounded rumours, too, and the evidence in favour of it seems to be of the flimsiest. The use of Goa stone and Oriental Bezoar stone in the treatment seems to indicate that the idea of poison did occur to the physicians, though Dr. Crawfurd argues that Scarburgh's manuscript "shows that those who directed the treatment had no suspicion of poison in their minds."

The treatment which poor Charles underwent during his last illness appears somewhat appalling to the modern mind. Then, as now, no doubt, the activity of the treatment and the variety of the drugs used were in direct proportion to the desperate nature of the case. But with all the new drugs and methods at our command which Charles' physicians lacked, we are scarcely as busy as they were in our treatment; we have instead some belief in a *vis medicatrix naturæ*.

The initial attack of convulsions was very successfully treated by venesection up to sixteen ounces. The King's personal physicians were then summoned, and arrived in a flock. They forthwith ordered wet cupping, emetics, strong purges and clysters. Cantharides were applied all over the head, and the red-hot cautery was also used!

Later, other aperients were added, powders were prescribed to promote sneezing, various mixtures were ordered to "strengthen his brain," to counteract the scalding of his urine, to stave off thirst; noxious plasters were applied to the soles of his feet. At one time Peruvian bark was administered, as some of the physicians thought the King might be suffering from a form of intermittent fever. As the patient's condition became more grave, the aid of drugs whose reputation rested on superstition rather than on science was invoked—Spirit of Human Skull, Raleigh's Antidote, Goa stone and Bezoar stone (a concretion formed in the stomach of an East Indian goat).

Not until the resources of pharmacy had been exhausted did the King finally succumb. Over twenty distinct mixtures were prescribed, some of them by as many as fourteen physicians in consultation!

We must all be grateful to Dr. Crawfurd for having shown how fruitful a subject the medicine of history may become. The value of his book is enhanced by several excellent portraits. There are many other royal deathbeds awaiting investigation in the light of modern medical knowledge: perhaps Dr. Crawfurd or a disciple will solve some of their problems for us.

**The Last Days of Charles II.* By Raymond Crawfurd, M.A., M.D., F.R.C.P. (Oxford: The Clarendon Press.) 5s. net.

Abstract of Introductory Dental Lecture.

BY Mr. W. A. MAGGS.

Gentlemen,—Although introductory addresses have long been discontinued at Guy's, some words of welcome and encouragement to the new students at the beginning of each academic year may not be out of place. On behalf of the staff I welcome all who have lately joined our dental school, and, whilst wishing you every success in your careers, can assure you that you will enjoy unparalleled opportunities, and that on our part we will do our best to make you competent practitioners.

First, I congratulate you upon your choice of a school, because the relationship of dental to general disease can be closely studied at Guy's. It is our daily experience in the Out-patient Department and in the wards to treat patients suffering from diseases due to or aggravated by oral sepsis. Pyorrhœa alveolaris, or, as it is called chronic suppurative periodontitis, is unfortunately always with us, and its early treatment offers the best chance of success. I say this disease is "always with us" because it seems to be increasingly prevalent, which statement is not altogether explained by saying that the disease is now more frequently recognized in its earlier stages.

How often do we not see the anæmic-looking woman or man whose long-standing ill-health is due to septic roots, or neglected alveolar abscess? The pale-faced ill-nourished puny child with enlarged or suppurating cervical lymphatic glands, or necrosed alveolar process, caused by infection from decayed teeth? Patients suffering from antral abscess, innocent and malignant ulcerations about the mouth, fractured jaws, and other surgical affections, are constantly being met with. It is this strengthening up of the specialty of dentistry with general surgery that justifies our recognition as a branch of the healing art, and raises the dental or oral surgeon above that of the dental mechanician.

It is an advantage at Guy's that the dental and medical student should work in hourly contact, and that the former loses neither time nor energy in going from one hospital to another. This intimate relationship often leads the dental student to qualify medically—a course of action much to be encouraged.

Whatever may be the advantage of a special dental degree, I cannot help thinking that the wider and broader education of the man possessing a medical and surgical qualification must eventually tend to the benefit of the patient, the practitioner and the profession. This view may be open to question, and some think that the extra time involved in taking the conjoint diploma could be better spent in confining one's attention to dentistry. My experience teaches me that a man who has the ambition and ability to pass the conjoint examinations can hold his own as an operator, and that he is more than compensated for the expenditure of time and money by his increased knowledge of the principles and practice of medicine and surgery.

Another benefit at Guy's is the residential college, where a student coming to London from the provinces, and having but few friends in this city, can find a safe haven within its walls. Here will he be associated with men having a common interest, and the social surroundings far outweigh the unpleasant atmospheric conditions prevalent in the Borough during some of the winter months.

The beginner may feel somewhat amazed at the curriculum set before him. All that he needs, however, is industry and perseverance, and the goal will be safely reached in the allotted space of two years, provided he sets out with an unalterable determination to work consistently and persistently. His preliminary studies may for a time seem disjointed and perhaps purposeless, but later the threads may be gathered up and woven into a practical bearing upon dentistry. Chemistry, anatomy, and physiology must be studied before diseased or pathological conditions can be recognised or any surgical treatment scientifically employed.

A broad and liberal general education is the best and surest foundation for any profession, otherwise the superstructure is apt to be weak, limited, and circumscribed—a condition to be avoided in every profession, and particularly in a specialty.

A knowledge of dental anatomy should form the basis for practice, and at first thought it might be said that we should restrict our study to man's dentition. Whilst admitting that the study of dental anatomy is essentially for the benefit that we may be able to confer upon mankind, it will be admitted upon consideration that man as an animal does not stand alone, and that it is advantageous to compare his dentition with that of anthropoid apes.

This again leads us to consider the evolution and modification of the teeth in relation to

function and diet, and it thus comes about that the dentition of the whole of the vertebrate kingdom is brought under our purview. Odontology must be viewed from no narrow standpoint, and as experts in dentistry we should be authorities upon all that pertains to the teeth.

Close study involves some amount of moral discipline. You will probably all agree with me when I say there is no greater pleasure in life than in reading, but perhaps you would wish to add, "provided we choose our own books." Well, for the present we will choose your books as scheduled in the delightful prospectus of Guy's Dental School, and hope your love of reading will have become a habit by the time you are legally qualified, and that you will always keep abreast with the progress of dentistry.

The quotation, "Crescit amor nummi quantum ipsa pecunia crescit," might be re-written, "Crescit amor lectionis quantum ipsa lectio crescit."

John Hunter was not a reading man, and boasted that his library was the dissecting room. Should any of you present turn out a genius like Hunter, you will be more than pardoned for preferring research to reading.

I am frequently asked, what are the worldly prospects of the qualified dentist? I reply that there is ample scope for success in practice, provided a man knows his work and possesses sympathy, or what is often called knowledge of mankind, or tact. Tact is defined as "peculiar skill or adroitness in doing or saying exactly that which is required by or is suited to the circumstances; nice perception or discernment."

The times have changed since Abernethy, and others who delighted in brusque mannerism, lived, and a professional man is not now likely to obtain a large practice unless he possesses "suaviter in modo, fortiter in re."

There are about 5,000 registered dentists, as compared with 40,000 registered medical men, and it is probable a dentist could earn a living wherever a medical man now lives. The unregistered dentist seems to flourish everywhere, but this, in my opinion, is to some extent due to the scarceness of qualified dental surgeons. The unregistered chiefly concern themselves with mechanical work, and there can be no question that the technique and knowledge of the highly-trained hospital student must eventually tell in his favour, and that the best interests of the public are safe in his hands.

"'Tis not in mortals to command success,
But we'll do more, Sempronius; we'll deserve it."

ADDISON.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Text-Books of Anatomy.

It is very appropriate that new editions of the two standard British text-books of anatomy should make their appearance at the opening of the Winter Session. "Gray" and "Cunningham" are both so familiar to students that it is unnecessary here to do more than indicate the changes in the new editions.

Gray's Anatomy: Descriptive and Applied. 17th edition. Edited by Robert Howden, M.A., M.B., C.M. (Longmans, Green & Co.) Price 32s. net.

The most important change in this edition is a very considerable revision and extension of the sections on applied anatomy. The old sections on "Surgical Anatomy" have been revised by Mr. Fedde Fedden, of St. George's Hospital; and the scarcely less important applications of anatomy to *medicine* are now for the first time indicated in paragraphs contributed by Dr. A. J. Jex-Blake, who also belongs to the school with which this text-book is associated. The increased prominence thus given to applied anatomy is no doubt a reflection of recent tendencies in the regulations of the examining bodies. Perhaps in time these sections may be allowed the distinction of large type; it would certainly add to the reader's comfort.

Another innovation is the introduction of the Basle nomenclature in brackets after the names commonly used by English anatomists. Some two hundred new illustrations have been added, mainly in the sections on Embryology, Angiology, Neurology and Splanchnology.

"Gray" is thus keeping thoroughly up to date, and will no doubt continue in popularity among students for many years to come.

Text-book of Anatomy. Edited by D. J. Cunningham, F.R.S. 3rd Edition. (Henry Frowde, and Hodder & Stoughton.) Price 31s. 6d. net.

A melancholy interest attaches to this third edition in that Prof. Cunningham laboured at the work of revision and supervision, in spite of failing health, up to the end, and the new preface was drafted but a few days before his death in June of this year. It is pleasant to realise that before his death he had the satisfaction of seeing his work acknowledged as the standard text-book on Anatomy in the English language.

The main revision in this new edition has been in the sections on Osteology and on Muscles. More advanced matter, dealing with such subjects as the architecture of the bones of the skeleton, anthropometry and the morphology of the skull and limbs, is embodied in a series of appendices to the section on Osteology. In former editions the Basle nomenclature was given in

brackets after the English names. Now, however, in the re-written sections "all old nomenclature which could be altered without undue confusion has been so arranged that in most cases, while the older terminology has been given, all alternative nomenclature has been abolished. In many instances (as, for example, the bones of the Carpus or Tarsus) the step has been boldly taken." A glossary has been added to show at a glance the B.N.A. terms which differ in any important detail from the terms in common use in the English language.

Other new features are a series of really excellent illustrations replacing the old figures in the section on the Muscular System, and a new index. In the latter, the common-sense plan of indicating the principal reference by a thicker type is adopted: we should like to see it adopted in Cunningham's "Practical Anatomy" also.

Anaesthetics.

Surgical Anæsthesia.—By H. Bellamy Gardner, M.R.C.S., L.P.C.P. London. Formerly Anæsthetist and Instructor in Anæsthetics at Charing Cross Hospital, Anæsthetist at St. Mark's Hospital for Fistula, etc. Illustrations and twelve plates. (Baillière, Tindall & Cox.) Price 5s. net.

The author tells us in his preface that he has intended to set out in a short form for the student and practitioner the principles of general surgical anæsthesia and the best methods of developing them. He does not seem to have succeeded altogether in his laudable attempt, and the result of his labours is a compromise between a small treatise and a large text-book, divided into curiously unequal proportions. Much matter, such as the first chapter of twenty-three pages, which is devoted to a history of surgical anæsthesia and the lengthy descriptions of his own apparatus and methods, seem superfluous when the book is to be read by students in three sittings. The chapter on chloroform contains a very inadequate account of the physiological properties and action of this important drug, while the directions given for its administration and the precautions to be observed during its use are not sufficiently indicated. A considerable space has been allotted to dental anæsthesia, as the author is of opinion that "more work of this kind will fall to the practitioner as the serious sequelæ of oral sepsis become more clearly recognised." Are not the dental surgeons already alive to them?

For the conduction of anæsthetic administration the author lays down two cardinal principles: (1) the necessity of maintaining a clear air-way and paying close attention to the breathing; (2) the importance of relying upon the corneal reflex as the best guide to the depth of narcosis. Much stress is laid upon the first principle, the dangers and sequelæ of an obstructed air-way being rightly emphasised. But we must condemn the prominence given to the testing of the corneal reflex. It is a delicate test and difficult of interpretation by the inexperienced, who become fascinated by it, and devote to it much time and attention which should be given to the changes in the respiratory rhythm. The student, when administering C.E. or chloroform, should pay his undivided attention to the respiration and pulse, and train himself to appreciate the changes in both as the result of various surgical stimuli; the depth of anæsthesia, etc. It frequently happens that from the nature of the operation the eyes of the patient are inaccessible. In the administration of ether the corneal reflex is of small importance. The author shows a decided preference for the open method of giving ether, but we are not in agreement with him that it is so superior to the closed method, or that the latter is invariably accompanied, as he suggests, by congestion, cyanosis, and laboured breathing. We are pleased to note that a mixture of chloroform and ether is recommended for infants and children in preference to chloroform; but surely ether is largely given with good results, even for quite lengthy operations? The antiquated and harmful dictum, "ether for patients from fourteen to sixty years of age, and chloroform from sixty onwards," apparently still finds support.

Short chapters are included on the choice of anæsthetics in various operations, and the effects of the surgical procedure upon the type of narcosis, on the treatment of emergencies and surgical shock, and on the pathological conditions which influence the anæsthetist in his administration. The illustrations and plates are good, and the book is easy to read.

Appointments.

Civil.

Desprez, H. S., L.R.C.P. and S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the North Tawton District of the County of Devon.

Gibbings, R. J., L.D.S., has been appointed Hon. Dental Surgeon, Royal South Western Hospital, Oudtshoorn, Cape Colony.

Ward, P. H., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer to the B'wana M'kubwa Mine, N.W. Rhodesia, South Africa.

Naval and Military.

Staff-Surgeon A. R. Thomas, R.N., has been appointed to the *Mutine*.

Territorial Forces.

Royal Army Medical Corps.—Lieutenant Alan Ayre-Smith, to be Captain (dated May 22nd, 1909).

Periodicals Received.—The Hospital; The Clinical Journal; The Nursing Times; London Hospital Gazette; The Prescriber; The Polyclinic; St. Bartholomew's Hospital Journal; The Manchester Medical Students' Gazette; New York State Journal of Medicine.

Sport.

Rugby Football.

GUY'S v. LONDON DEVONIANS.

With this, the first match of a formidable list of fixtures, the Rugby XV. commenced the season at Honor Oak Park on Saturday, October 2nd. A fine afternoon and the prospect of a good game brought a larger crowd than the corresponding fixture of last year. It may be noted also that the enlarged stand was much more patronised.

Guy's had to field without their three crack players, Archer, Lee, and Jones, but they showed fine determination from the first, and eventually ran out winners by the excellent margin of 2 goals and 3 tries (19 points) to 1 try (3 points).

To keep the three-quarters attacking was evidently the game to persevere with, and after several good bouts of passing Stokes rounded Tooze, the Devonian full-back, and registered the first try. Soon after, Stranach went over the line on the left, but was thrown, and lost the ball; by a great effort on hands and toes he recaptured it, and gained the second try, its method of registration causing much amusement. Stokes was unable to convert either of these tries, and was also unsuccessful with a kick from a try gained by Clarke. The Devonians all apparently watched for Clarke to pass, instead of which he ran strongly and scored with a well-judged effort. The Devonians were so well held that they scarcely attacked at all, and Guy's led at half-time by 3 tries to nil.

On resuming, the pressure was well maintained, the home forwards playing splendidly, Crook and Hind using their weight with great effect. The ball was rushed over by Mullins and Hoby, but bounced awkwardly; a try was averted by Barnes touching in self-defence. Once again good handling enabled Hoby to put Stringer in beneath the posts. Stokes easily goaled. Stringer was now putting in great work on the left, using his pace, and always off the mark at full speed, he was a continual source of anxiety to the visitors, who concentrated their defence on his wing. But it was the turn of Devon to score next. A typical dribble by McSaunders ended in a try. Butcher's kick was just wide of the posts. From the visitors' half Medlock and Harkness sent Stringer away; facing Tooze he passed in to Medlock, who unfortunately dropped the ball with no one in front of him. But Guy's were not long denied. The game was delightfully open, and the ball came out to Stringer again; making ground he passed to Covell, who sent to Harkness, and then on to Stokes, who cleared the full-back and grounded. He converted it himself with a good kick. Lacey saved from Goudie towards the end, and the final score read: 2 goals 3 tries to 1 try (19 points to 3). Teams:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, G. C. Covell, L. Stokes (three-quarters): C. H. Medlock, W. T. Clarke (halves); H. R. Mullins, G. R. Hind, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, A. V. Moberly, D. Smythe (forwards).

Remarks.—The forwards found their game at once, and played well right through. Moberly made a welcome reappearance. Smythe must try and control his feet more in the "scrum." Both halves are to be congratulated on their play; they were both new to the position. Stringer was good. Harkness and Covell played soundly, but the former wants a little more pace. Stokes' running was excellent, but he must try and not hesitate when facing the full-back; he would do better to go "all out" with all the force he can command. Lacey was as sound as ever.

GUY'S v. CATFORD BRIDGE.

A drawn game, and a most unsatisfactory draw, too, was the result of this match, played at home on Saturday, October 9th, 1909. During the greater part of the game Guy's were beaten forward, the home pack, though good individually, never seemed to get into their proper stride as a combination. The Catford pack were heavy and extremely vigorous; they bustled first, last, and always, they knew if they could only keep going they would reduce the chance of defeat. They packed tight, and broke up very quickly, in fact so quickly that one of their forwards was out from the scrum and lying offside almost before the ball was in; for this infringement Guy's had many kicks awarded them, but with the exception of the one which Stokes turned to account, none were near enough to have a "shot." Harkness could do nothing right, and the more passes he dropped the more anxious he apparently became.

There was a great crowd present when play commenced. Guy's faced the sun, and for a long time neither side gained any advantage. The Catford forwards at length got well down, but a fine "touch finder" by Jones brought them back. They were, however, soon attacking again, aided by some well-judged kicks on the part of Lindow. Guy's were hard put to it to keep the visitors out, Lacey finally bringing off a fine save and run; getting well down the field, he passed to Stokes who found touch by the visitors "25" line. A series of scrums ensued, and several times the home three-quarters had fair chances, but almost all were spoilt by the unlucky Harkness. Larmont and Wilkins of Catford next dribbled away to past the half-way flag, and Guy's being penalised, F. Helder kicked a very fine goal indeed. Just before half time Stokes equalised in the same way. His kick, not quite the length of Helder's, perhaps, was, however, an excellent one.

On resuming Guy's were still unable to score, though once several forwards crossed the line, but lost the ball. Mullins led his men well, and by precept and example did his utmost, but all to no avail. Roberts and Stranach were prominent, the former playing splendidly, while Crook was playing his usual sound game; Medlock was not a bit comfortable at the scrum base, and I doubt if Jones got a really smart pass all the afternoon.

Stringer had a nasty kick towards the end of the play, and changed places with Lacey. Once Lee put in a typical run, but was brought down, Lindow returning to halfway. Later, when play was beneath the posts in the home "25," Lindow almost dropped a goal, having two attempts practically following each other. Guy's touched down. Play was transferred to the other end, and Stringer found touch by the corner flag. From here Catford rushed the ball out of danger, and after more play, chiefly confined to the forwards, and not very interesting, the game ended. Guy's: 1 penalty goal; Catford: 1 penalty goal. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, A. H. Harkness, H. Lee, L. Stokes (three-quarters); J. P. Jones, C. H. Medlock (half-back); H. R. Mullins, H. Archer, A. H. Crook, H. Hoby, C. S. L. Roberts, W. S. Stranach, D. Smythe, A. W. Davies (forwards).

Referee: Mr. E. F. Walker.

Remarks.—The play of the Guy's team was frankly disappointing and much below expectations. It is early to criticise severely, but the new comers in the XV., though showing signs of being useful, were distinctly below "top" form. Davis was somewhat erratic; he has plenty of energy, but must learn to pack and bind. Smythe doubtless will correct his great fault, lack of control in the scrum. Harkness was not at home and fumbled frequently, and Stringer and Stokes had few chances. Lacey and Lee were both sound. Medlock at half was slow, he should play to the "long line" from touch more frequently. The forwards want more "devil" in the loose, and absolutely must heel more quickly; the ball hangs far too long in the scrum.

Association Football.

GUY'S v. CROYDON PARK.

1st Round of Surrey County A.F.A. Cup

Played at Honor Oak Park, October 9th, and won by Guy's, 3—2. This was the first match of the hospital season, and in consequence play, on the whole, was somewhat ragged.

Starting with the sun in our faces we made a quick rush into our opponents' defence, but ended weakly, Humm kicking over the goal. Croydon Park retaliated, but after some fast midfield play the hospital again got going, giving our opponents a somewhat anxious time. From a long centre by Glover to the left wing some scrambling play took place, and then a pass from Birks to Witts, which was too quick for the latter to accept, but Glover came with a rush and scored with a good fast shot. This seemed to spur on Croydon Park, who would have scored but for Rook's fine efforts in goal. At the end of twenty minutes' play Birks put the hospital still further ahead by scoring a nicely-judged goal. At half-time the hospital led by 2 goals. Croydon Park had been several times very close to scoring, but the hospital defence, whilst not too sound, managed to prevent a score in the nick of time.

On changing ends the hospital took matters rather too easy, and by fast rushes our opponents scored twice, but their efforts, which had been greatly stimulated by their success, were considerably damped by Witts scoring from close in. Quite an exciting scrummage took place on the Croydon Park goal line, from a foul against their goalkeeper, but despite the hospital efforts no score resulted. Shortly after, time was called, leaving the hospital winners by 3 goals to 2, thus qualifying to meet Alleyn in the second round at Honor Oak Park.

Remarks.—For the first match of the season the hospital showed up very favourably. There was not sufficient accuracy in the passing of the forwards, but this will, no doubt, be remedied after a few matches. With regard to the half line, Pedrick was as cool and clever as ever. Swallow was distinctly poor; he must get fit soon if he is to keep his place, and must feed his forwards more frequently and accurately. Green was vigorous and useful. Bastard and Neely, the latter a newcomer to the first, were decidedly good, whilst Rook, in goal, saved in excellent style, and was not to blame for the goals scored against him.

Hockey Fixtures.

Date.	Club.	Ground.
1909		
Wed. Oct. 6	R. N. C.	Greenwich
,, ,, 13	Enfield	Enfield
,, Nov. 10	Walton	Tadworth
,, ,, 17	H. A. C.	Finsbury
,, Dec. 8	The Mount H. C. ...	Wormholt Farm
,, ,, 15	R. N. C.	Greenwich
1910		
Wed. Jan. 19	Royal Masonic School (Two Teams) ...	Bushey
,, ,, 26		
,, Feb. 2	K. G. S. Old Boys	Bushey
,, ,, 2	The Mount H. C. ...	Wormholt Farm
,, ,, 23	Enfield	Enfield
,, Mar. 2	K. G. S. Old Boys	Bushey
,, ,, 9	Woolwich Garrison	Woolwich
,, ,, 16	H. A. C.	Finsbury

Marriages.

HUGHES—RAY.—On September 1st, at St. Anne's Church, Kew, Ernest Cranmer Hughes, M.C., F.R.C.S., son of Dr. and Mrs. Hughes, of Plymouth, to Constance Ellen, daughter of the late Humphrey Hinton Ray and Mrs. Ray, of Kew.

MAY—WILLIAMS.—On September 21st, at the Parish Church, South Bersted, Sussex, by the Rev. H. Heaven, William Norman May, M.D., of the White House, Sonning, Berks, younger son of Mr. and Mrs. Daniel May, Ashleigh, Reading, to Dorothy Louise Williams, youngest daughter of Mr. and Mrs. Prescod Williams, Glenthorne, Bognor.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

October.

Sat. 30. 1st XV. v. Lennox (Home).
A Guy's XV. v. University of Bordeaux (at Bordeaux).
2nd XV. v. Lennox "A" (Away).
1st XI. v. Croydon Park (Home).
2nd XI. v. Old Citizens "A" (Away).

November.

Mon. 1. Clinical Lecture by Mr. Eason (Ophthalmology), 1.15 p.m.
Meeting of Students' Club, 4 p.m.

Thur. 4. Messrs. Symonds and Steward's Take-in (Messrs. Crook and Evans).
Primary F.R.C.S. Examination begins.

Sat. 6. 1st XV. v. Marlboro' Nomads (Home).
2nd XV. v. Streatham "A" (Away).
1st XI. v. Old Malvernians (Home).
2nd XI. v. Eversleigh "A" (Away).
Physical Society: Paper by Mr. Stott, 8 p.m.

Mon. 8. Clinical Lecture by Mr. Steward (Laryngology), 1.15 p.m.

Wed. 10. 1st XV. v. Oxford University (Home).

Thur. 11. Messrs. Lane and Fagge's Take-in (Messrs. Chapple and Lees).

Passim.

THE Bye-Election in Bermondsey, which they say is to make history, is now decided, but it has brought into prominence a matter on which it is necessary we should speak with considerable emphasis. A report which appeared in certain newspapers to the effect that fifty Guy's men were assisting one of the political parties concerned, led some friends of the hospital to fear that the hospital was giving some official recognition to this party, whose candidate happened to be a Guy's man. We have been inundated with letters and inquiries upon this point.

Now it is, of course, open to any student to support and assist any political party which he may favour, but he does it as a private individual, and not as a Guy's man. It should be perfectly obvious that the hospital, like any other public institution, cannot identify itself officially with any political party, and has, indeed, no politics; also that the GAZETTE, as the hospital journal, must remain, as it has been hitherto, entirely neutral. We would reassure all who may have had any doubts upon this matter that this fundamental principle has not been in any way departed from during the recent election. The only function which the hospital, as such, has in connection with any election is to heal the cut scalps and black eyes of those who have resorted to primitive methods of political argument.

IT may interest some of our readers to know that these reports which appeared in the newspapers were quite inaccurate, and probably

exaggerated the number of men who have given any assistance to the Socialist candidate by at least 500 per cent. The true facts of the case are stated in our correspondence columns. How the distorted account got into the papers is a complete mystery, and likely to remain such.

The Residents of the hospital, recognising that some persons might be led by the obnoxious paragraphs to think that the hospital was taking a part in the election, thought fit to send a joint letter to some of the papers in the following terms:—

To the Editor of ———

Sir,—In the daily Press recently the statement has been made that many Guy's men are supporting Dr. Salter, the Socialist candidate for Bermondsey. As this may tend to convey a totally wrong impression, the Residents of Guy's wish to point out that the general feeling in the hospital ought not to be gauged by the actions of a few irresponsible junior men.

The Residents of Guy's Hospital.

Guy's Hospital, London, S.E.
October 20th.

The sense of this letter must be obvious to everyone, but the terms in which it is couched seem to have given offence to some of the men at the hospital, whose letters on the subject will be found in our correspondence columns. The last three words of the letter seem to have been particularly unfortunate in arousing controversy, but we would point out that the word "irresponsible" and the word "junior" are each capable of more than one interpretation, and either might be applied to the Residents themselves in relation to their superior officers. As we have indicated, everyone at the hospital, from the highest to the lowest, is "irresponsible," and a law unto himself in the matter of politics. The word was therefore superfluous in the Residents' letter; the other word, "junior," to which exception is taken, is a purely relative term, and it is not permissible to suppose that the Residents, in using it, intended to attach any opprobrium to the men concerned.

The further question raised—as to whether the Residents had any right to send out the letter—need not long detain us. It is clearly open to anyone at the hospital to write on hospital notepaper to any newspaper on any subject. The Residents, as the only collective body of men at the hospital, saw that the hospital might be damaged by the reports which were current, and took steps to correct such reports to the best of their ability. They could not, and did not, lay any claim to be specially representative of the students at the hospital. The political knowledge or ignorance of the Residents—a point raised by one correspondent—is, of course, impertinent.

A meeting of the Students' Club is to be held next Monday, November 1st, Dr. Hale White in the chair. Two alterations in the Bye-Laws of the Club are to be proposed, both having reference to the question of smoking. On the one hand, it is to be proposed that smoking shall be permitted in the reading room, and on the other, that it shall not be permitted in the dining hall until after 6.45 p.m. The latter, of course, is already among the Bye-Laws, but it has long been a dead letter, and it is certainly time either to enforce it or to remove it from the list.

Mr. D. A. Mitchell has been appointed Obstetric Resident, commencing duty on November 1st.

Our match against Cambridge University last Wednesday was sadly spoiled by the weather, which was of the dampest possible description. Under such conditions, it was not surprising that neither side scored a try. It is interesting to note that a similar result, a pointless draw, befel the game between London Hospital and Oxford University on the same afternoon. We can only hope that our own match against Oxford, on the 10th of next month, may be played under more favourable conditions.

Dr. Charles Burland, who has been appointed the new senior medical inspector of the Board of Trade, is an old Guy's man, who graduated at the University of London with first-class honours and a scholarship in forensic

medicine. He held junior staff appointments at St. Mary's and Great Ormond Street Hospitals, and then joined the Cunard Line. Since 1882 he has acted as medical officer under the Board of Trade at Queenstown, Liverpool, and Glasgow in turn.

Mr. W. M. Bergin, F.R.C.S., Ophthalmic Registrar and Clinical Assistant at Guy's, has been appointed an honorary assistant surgeon to the Royal Eye Hospital, Southwark.

We have been asked to remind those of our readers who are members of the Guy's Hospital London University Club that the Extraordinary General Meeting, which has been summoned to discuss proposals for considerable alterations in the constitution of the Club, will be held at half-past four in the afternoon of Monday, November 8th, in the Committee Room of the Medical School Office, Guy's Hospital. This Club was founded in 1889, "to promote social intercourse, and to further the interests of both the Hospital and the Medical Faculty of the University." The chief feature of the Club has always been its Annual Dinner, which at one time used to be held at the Café Royal, but has of late years been celebrated at the Trocadero Restaurant. The list of distinguished Presidents of the Club includes Dr. Pavy, Sir Samuel Wilks, Sir Henry Howse, Dr. Pye-Smith, Sir Thomas Stevenson, and the present holder of the post, Mr. Golding-Bird. All Graduates or Undergraduates of London University who are, or have been, at Guy's Hospital are eligible for membership, if proposed and seconded by members. Such nominations should be communicated to the Honorary Secretaries (Messrs. Philip Turner and Kenelm H. Digby) before November 7th.

Literary Notes.

Messrs. William Green & Sons, of London and Edinburgh, have just published a work of reference of a comprehensive character under the title of *Green's Encyclopædia and Dictionary of Medicine, Surgery and the Specialities.* The work is in ten volumes, and contains over eleven thousand headings; an elaborate system of cross references makes any desired information readily accessible. The list of names of eminent authors who have contributed the longer monographs, at once indicates the authoritative character and the reliability of the new *Dictionary*. The price of the ten volumes is £10 net. A descriptive prospectus will be sent upon application to the publishers.

Appointments.

Civil.

Bolus, P. R., M.B. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant-Surgeon to the Royal Albert Hospital, Devonport.

Clarke, Henry Joy, Jun., M.A., M.B., B.C. Camb., M.R.C.S., L.R.C.P., has been appointed Honorary Surgeon to the Doncaster Royal Infirmary.

Ker, W. Percival, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Bellingham Union.

Naval.

Fleet-Surgeon W. Bett, R.N., and Surgeon C. J. O'Connell, R.N., have been appointed to the *Sutlej*, on recommissioning, 3rd November.

Surgeons K. H. Hole, R.N., and G. F. Syms, R.N., were awarded prizes on completion of the course of instruction at Haslar Hospital, Gosport.

Papers by Guy's Men.

J. H. Busteed, L.R.C.P. & S. Acute Myelitis following Measles.—*British Medical Journal*, 16th October, 1909.

R. Lawford Knaggs, M.C. Camb., F.R.C.S. Eng. A Case of Duodenal Fistula Cured by Operation.—*The Lancet*, 16th October, 1909.

E. L. Kennaway, M.B., B.Ch. Oxon. On the Estimation of Purine Bases in Urine.—*The Journal of Physiology*, October 22nd, 1909.

E. E. B. Landon, M.R.C.S., L.R.C.P. Lond. Hereditary Transmission of Squint.—*British Medical Journal*, 23rd October, 1909.

Books Received.—Gray's Anatomy, 1909, two copies; Cunningham's Anatomy, 1909; Halliburton's Physiology, 1909, two copies; Bickham's Operative Surgery; volumes V. and VI., Clifford Allbutt's System of Medicine, 1909; The Cambridge Natural History, in ten volumes; Hardwicke's Sight Testing; Alcock & Ellison's Experimental Physiology; Grayston's Treatment and Filling of Teeth; Kella's Practical Chemistry; Thursfield & Branson's Pathology: Thomson & Miles's Surgery; Howell's Physiology, 1909.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Bermondsey Bye-Election.

Dear Sir,—When a mountain of fancy arises from a mole-hill of facts, it is generally the duty of one in possession of those facts to make them clear, and so point out the gaseous nature of the superstructure. On these grounds I beg to offer some explanations in connection with our support of Dr. Salter's candidature in the Bermondsey election. In the first place, I wish to make it clear that Dr. Salter in no way appealed to the hospital for help. Although he would not have been acting contrary to precedent (*vide* Gazettes of February and March, 1907, correspondence, and Passim notes *re* "Guy's v. L.C.C. Wastrels"), and although he was in need of canvassers, he justly realised that it is highly undesirable for the hospital to appear to be connected in any way with an election of this kind. On the other hand, two or three Guy's students wrote to offer their help, which was naturally accepted. Before any hospital men had visited the constituency, the *Daily News* printed its glaring column, and three days later the *Daily Mail*, jealous of its reputation, replied. One can realise that the ridiculous statements which appeared in the newspaper columns should have caused some alarm amongst the hospital's outside supporters whose experience tells of the effects of press "scandals"; and this especially as they were ignorant of the fact that the statements were quite unfounded, and had issued neither from Dr. Salter nor from Guy's. So long as the hospital is largely dependent on voluntary contributions for its existence, it must incline to no party, least of all the Socialist party—that is obvious. Although one cannot answer for Mr. Fagge's recruits, one can assert that those who have worked for Dr. Salter have worked as Socialists for a Socialist, and not as Guy's men for a Guy's man.

One fails to see in what capacity the Residents interfered in the matter. Some denial of the newspaper reports was desirable, but if forthcoming it should have been from an official source. The personal note struck by the Residents' letter effectually precluded the idea that this was more than the outcome of a somewhat unreasoning spleen, and a failure to realise their position in the hospital. They neither represent, nor are they in a position to understand, the general opinion of the hospital in a matter of this kind. Their understanding of politics, too, seems to shine but dimly through a thick fog of prejudice, as far as one can gather from the fact that some twenty more or less intellectual minds should, in a vastly complicated matter of this kind, reflect but a single thought.—I am, etc.,

Guy's Hospital, "C."
October 24th, 1909.

Sir,—The recent action of the Residents with regard to student supporters of Dr. Salter is a deplorable one. Without making the slightest effort to ascertain the true facts of the case, they have, in the columns of a daily paper, denounced as "irresponsible junior men" certain respectable members of our community.

I fully admit that some of the men working for Dr. Salter (although they are represented by as many members from the wards as from the dissecting-room), may be junior men, but I strongly object to the use of the entirely unjustifiable adjective, "irresponsible." Although not a Socialist myself, on the grounds of personal acquaintanceship and frequent conversations with these gentlemen, and above all by reason of various excellent speeches made by them from time to time in the Hospital Debates, I can openly and confidently declare that they number among them some of the best-read, and as far as political and social knowledge is concerned, some of the best-fitted men for election work of any students at present in the hospital.

It is, sir, always a reprehensible act to cast a slight upon the political views of other people without bringing up any arguments against those views. It must be evident that it is really an act of this kind which the Residents have committed; for seeing that it is, and lately has been, the exception rather than the rule for a Resident ever to speak at a meeting of the Debating Society—even at last Saturday's Budget Debate only one out of half-a-dozen or more Residents who were present made any attempt to express his views by word of mouth—one is inclined to conclude that the majority of them are incapable of formulating political arguments of any sort.

I quite see, sir, that it is undesirable that the hospital should become connected in the public mind with any particular political creed, but if the motive of the Residents was to prevent an idea of this nature getting abroad, why do they take no steps towards disclaiming connection with the Tariff Reformers who are being sent out from the hospital?

Before concluding, sir, I should like to ask if there is any precedent for the Residents taking upon themselves such a responsibility as they have done in this case in regard to a matter which, if dealt with at all, should surely remain in the hands of the hospital authorities.—Yours faithfully,

J. A. RYLE.

[This subject is referred to in "Passim" at considerable length.—Ed.]

The Sorrows of an Assistant Surgeon's Dresser.

Dear Sir,—Accepting in its widest sense your invitation to criticise the methods of imparting medical knowledge adopted by our teachers at Guy's, I venture to suggest a change in the manner and spirit of conducting Surgical Out-patients. It is the cause of the

Assistant Surgeon's dresser which I wish to plead. At Out-patients he is given his one opportunity of acquiring a knowledge of systematic surgery. The ward clerks have their registrars, the full dressers have the privilege of "going round" with their respective chiefs, but the Assistant Surgeon's dresser is sent to the Out-patient department. There, under the present system, he occupies a position which is a compromise between a door-keeper and a ticket-office clerk, doing mechanical and, so far as his own interests are concerned, useless work, whilst most of the sound teaching is addressed to more senior men and the usual crowd of "chronics" who flock to these demonstrations.

Would it not be more reasonable if those responsible would teach the dressers directly, and let the crowd, with its insatiate hunger for knowledge and front seats, pick up the crumbs which fall from the table?—Believe me, yours truly,

A JANITOR.

Guy's Hospital.

Mr. Henry Taylor and the Choral Society.

DEAR SIR,—Many—indeed, I may safely say, *most*—of the old members of what used to be the Students' Glee Club, will be very sorry and not a little surprised to hear that Mr. Henry Taylor has been superseded in the conductorship of that now most highly-developed institution. The old members of the Nurses' Choral Society will even more deeply regret such an event; some of them looking back with wistful hearts to the less ambitious but none the less enthusiastic time when they first met in the Matron's drawing room. This is not the place, nor may I be the person, to argue the merits or demerits of Mr. Henry Taylor as conductor. I will only say that in my time he was always deserving of our support and loyalty, and I believe none of us wanted a better. However deficient the present generation may find him, we of the old school cannot forget that the present state of efficiency of the Guy's Hospital Musical Society could never have been attained without his constant and ever-willing support.

I am taking upon myself to inaugurate a small subscription list from *old* members of both the Students' Glee Club and the Nurses' Choral Society, in order to obtain a small memento of Mr. Henry Taylor's services to the hospital.

I have written personally to as many of the old secretaries and other officials as my own, and one or two of my friends' memories can carry me; but feeling that there must be many who would not like to be left out of such a list, I am asking you to insert this letter in your next number of the GAZETTE. I would suggest that subscriptions should not exceed 2s. 6d. for members of the Students' Glee Club, and 1s. 6d. for members of the Nurses' Choral Society, and, of course, I would not absolutely limit it to old members. Mr. Martyn Lobb will be glad to receive any subscriptions at the hospital, or they may be sent direct to me.

I intend, unless any subscriber has a better plan, to forward to Mr. Taylor a list of "his old friends" who subscribe, and to allow him to choose for himself what form the memento should take.—I am, yours faithfully,

RICHARD FELTON.

Broadbottom, nr. Manchester.

The Women's Suffrage Meeting at Blackheath.

[The following letter has been received by us, addressed to "The Students of Guy's Hospital."—ED.]

DEAR SIRS,—Having been on the "lark" several times in my own school days, I am not sitting in judgment on you for the "rag" you had at our meeting at the Blackheath Concert Hall the other night, but we, as English girls, had a code of honour, and I am sure you, as Englishmen, have also *your* code of honour, and I am about to appeal to that honour.

Do you not think it right and just that you should bear the expense of the damage you did to the property at the Blackheath Concert Hall?

I, as treasurer of the local union, am daily expecting a bill to be sent for broken chairs, paint and floor damaged by the smelly stuff you upset, etc. This bill, I am sure you will own, is for you to settle, not for me.

You have lost me some money, too, in the collection by frightening so many of the audience out of the hall before Mrs. Lawrence's appeal for funds and before the boxes went round; but, on the other hand, you have been the means of gaining us a great deal of sympathy from people who were antagonistic or indifferent to our movement before you came down and acted as you did.

In any case, we shall count the loss of our wrecked meeting small if it ends as it ended in Birmingham, where the students of the University upset Miss Pankhurst's first great meeting there. Afterwards they paid all damages, and such a good feeling was created between the sporting students and the sporting suffragettes that they sent a special invitation to Miss Pankhurst to come again that they might listen to what she had to say. Later, when they realized the justice of our cause, they used their sporting genius to aid the suffragettes at Birmingham. So that I say, again, we shall count our wrecked meeting at Blackheath as *no* loss if it is the means of forming a bond of friendship between the students of Guy's and the suffragettes.

We invite you all to go, free of charge, to St. James' Hall any Thursday evening and listen to Mrs. Pethick Lawrence and Miss Christabel Pankhurst, and you will then realize that there is something deeper than sport underlying the actions of the suffragettes, and making women undergo imprisonment, and hunger, and the torture of forcible feeding. They are made of the stuff that heroes are made of. We don't want to think that in this age it is left to women alone to be heroic. We want to feel that the young English *men* are made of the same stuff, and it is so, I am sure, in spite of your "rag" the

other night, and I know you will repair the ravages you have made in an honourable way, that we, the suffragettes, may honour you, the students of Guy's, and that you, the students, may learn to honour the suffragettes.—Yours truly,

R. MAY BILLINGHURST.
Hon. Treas. Lewisham W.S.P.U.

7, Oakcroft Road, Blackheath, S.E.
October 17th, 1909.

Guy's Physiological Society.

A MEETING of the above Society was held on Monday, October 25th, Mr. Hughes occupying the chair.

An interesting paper was read by Mr. H. C. GODDING, entitled "Darwin's Theory." A few of the general principles of the evolutionary theory were first described, and this was followed by a discussion of the causes and functions of protective colouring. The gradual development and protective nature of sympathetic colouring were exemplified by reference to various birds' eggs, and to the general harmony of colour which the fauna of large regions bears to their surroundings as noticed by Darwin. Mimicry, as seen among butterflies, formed one of the best-known and most perfect instances of colour adaptation.

The benefits that are conferred upon animals by the possession of instinct were next described, and it was shown that instinct is natural and not acquired. Lamarck considered that instinct is largely inherited habit, but the bulk of argument was against this view.

In considering the influence of environment on the organism, it was shown that upon the animal's power to adapt itself to its surroundings depended its place in Nature.

In conclusion, the author speculated on the origin of life, and was of opinion that all true conceptions of this subject must necessarily be beyond human reason, since such knowledge would not be useful in the struggle for existence.

An interesting discussion followed, in which some dozen members took part. The meeting closed with a vote of thanks to Mr. Hughes for occupying the chair.

G. E. GENGE-ANDREWS (Hon. Sec.).

Pupils' Physical Society.

The second meeting of the session was held in the Wills Library on October 16th, and was a Pathological Meeting. Mr. Townrow was in the chair, and forty-three members were present. A number of interesting specimens were shown and discussed:—

(1) Intussusception of malignant cæcum. (2) Carcinoma of cæcum. A. H. Crook.

Sarcoma of scapula. N. Mutch.

Gumma of the heart with section. C. H. Rippmann.

Abscess of spleen with destruction; abscess cavity communicating with stomach, and transverse and descending colon; with vomiting up of intestinal casts and spleen. E. P. Poulton.

Abscess of spleen from an infective embolism. N. Mutch.

Cystic kidneys of infant, with section. J. G. Saner.

Horse-shoe fibrotic kidney and bony deformity imitating rickets in child of fourteen. G. F. Marshall.

Fibroid of uterus with degenerative changes. G. Maxted.

(1) Cystic disease of fibula. (2) Retroperitoneal sarcoma. F. A. Dick.

Sarcoma of ? glands invading lung. C. M. Plumptre.

The following members joined in the discussions:—Dr. Goodhart, and Messrs. Lee, Maxted, Dean, Wallis, O'Callaghan, T. D. M. Stout, Townrow, Hart, Chapple, Neville Cox, Low, J. G. Saner, and the Hon. Secretary.

Fund for Mr. A. A. Clark.

We have received, and hereby acknowledge, the following contributions to the above fund:—

	£	s.	d.
Fleet-Surgeon W. J. Bearblock, R.N.	2	2	0
Mr. W. Arbuthnot Lane	1	1	0
"The Philosopher"	2	2	0
Mr. E. W. H. Shenton	2	2	0
Mr. Gerald Sichel	1	1	0

Several of the letters accompanying these contributions referred in an appreciative manner to the usefulness and efficiency of the late assistant in the Skiagraphic Department.

Notice.

Revision Classes in Medicine.

The examination for the Revision Classes in Medicine will be held on Monday, November 15th, at 10 a.m., in the Medical School.

The Viva Voce examination will be on Wednesday, November 17th, at 3 p.m.

The Revision Classes themselves will start on Monday, November 22nd, and they will be held in the Medical School on Mondays, Wednesdays and Thursdays in Class Room 3, immediately after post-mortems, or, in the absence of any post-mortems, at 3.30 p.m.

(Signed) HERBERT FRENCH.

Some Cases of Convulsions in Children and of Acute Encephalitis.

CLINICAL LECTURE BY Dr. J. FAWCETT.

Gentlemen,—I propose to preface my remarks by giving you details of the case of a little girl, æt. 1¾ years, who is now, May 5th, 1909, in the Isolation Ward, and who was admitted to the hospital on April 12th last for convulsions. Previous to the present illness the child had been healthy, except that, four months before admission, she had had four fits in one afternoon. The fits were described as being of the same character as, though less severe than, those for which she was brought to the hospital. On the evening before admission, April 11th, the child seemed poorly and tired, showed no inclination for play, and after being put to bed she passed a restless night. In the morning she would not take her food; at eleven o'clock she was sick, and had a fit, followed by others, some of which Mr. Allan saw, and has described as follows:—The convulsions affected the right arm and leg only, the mouth was repeatedly drawn down to the right side, and there was lateral nystagmus; the pupils reacted to light. When I saw the child she was very collapsed and cyanosed; there was a left convergent strabismus; after raising the limbs it was perceptible that the right arm and leg, when dropped, did so more heavily than the limbs of the left side. At first, apart from the fact that the child had rickets, we found no signs of disease anywhere. The following morning, the day after admission, the child again had a fit, and about two and a half hours later the fits recurred; on this occasion the movements were again unilateral, but on the *left* side of the body. The mouth also twitched to the left. The temperature, which had been high since admission, rose to 105°F., probably, in part, as a result of the repeated fits. After tepid sponging and inhalation of a small quantity of chloroform, the temperature fell, the child was quieter, and the fits ceased. She made good progress until April 17th, the sixth day in hospital, when, for no apparent reason, she again had convulsive movements on the left side of the body. She was treated in the same way as before, viz.: with an enema containing potassium bromide and chloral hydrate, and a hot bath with mustard was administered to her. The convulsions ceased, and since then the child has been, so far as the cerebral symptoms are concerned, quite well. The temperature, high at first, has completely subsided. To fill in the spaces in the history of the case, I may tell you that on the third day after admission the child developed a bronchial catarrh, and this was followed by a definite "whoop." She passed safely through a well-marked attack of whooping cough. I may also remind you of an important factor in the case—that the child has rickets. The head is of the elongated type, bulging in the posterior part with prominent frontal eminences, and the epiphyses of the long bones are enlarged; the belly is protuberant.

There are one or two remarks I should like to make in the first place about the liability of children to derangement of the motor functions of the brain, those of the spinal cord, on the other hand, being seldom involved. These derangements form one of the common disturbances of function from birth up to the third year or even later, and especially are they likely to be produced by, or associated with, some form of gastro-intestinal irritation in rickety children. The duration of the paroxysm is an important feature, and in the case I have described, although the child was obviously ill when first admitted into the hospital, yet we did not regard her condition as a very serious one. But when the fits recurred two days later we took a graver view of the case, and thought it possible that there might be an intracranial lesion. The convulsions of children are, in many cases, quite unlike those in adults; for example, we often hear the mothers describe them as attacks in which the child becomes suddenly stiff, or "black in the face," as they put it, while in other cases the main feature of a convulsive attack is a slight, but ill-defined general convulsive movement, and not the definite general epileptiform seizures commonly seen in adults.

In considering the diagnosis of this little girl's case, the first disease we thought of was rickets. Rickets in children forms the most suitable soil for the development of convulsions. We recognise that an infant with rickets has a strong latent or potential power to produce convulsions on the least provocation, or, in other words, that in rickety children the motor functions of the brain are exceedingly unstable. There are a hundred and one irritants that may be the immediate cause of the convulsions. The commonest is improper feeding; another common one is said to be dentition, but it is rare to meet with convulsions in a child who is cutting teeth

unless rickets exists. If rickets is present then the irritation, associated with dentition or with indigestible food, or whatever irritant it may be, is liable to produce them. On the other hand, the mere fact that we are dealing with a rickety child does not imply that the convulsions in that particular case are due to rickets, and it is especially true that in the diagnosis of cases of convulsions in children *festina lente* is a very excellent motto. Do not be in too great a hurry to make your diagnosis of the cause of the convulsions in these cases.

The direct causes of convulsive attacks in children include different varieties of meningitis or of some cerebral lesion, such as abscess. The child whose case I have described to you had unilateral convulsions, first on the right side, and later on the left, and at first, when we saw convulsions limited to the one side, we thought that possibly a local lesion on one side of the brain was the determining factor. Although it is most important to investigate the possibility of a local intracranial lesion being present in such a case, yet we must not take it for granted that a unilateral convulsion implies the existence of a local lesion of the brain, for unless the fits recur on the same side we should be quite wrong to make such a deduction in most cases. In this particular case you remember that the convulsive movements the next day were on the opposite side of the body to those present on the day of admission. Again, it is not uncommon for bilateral convulsions to occur with unilateral lesions of the brain; we have seen that unilateral convulsions occur without any recognisable local brain lesion, for it happened in this girl's case. I remember the case of a girl who died from uræmia, and was subject to right-sided fits. At the autopsy no local intracranial lesion was found to account for them, and so they were taken to be unilateral fits due to uræmia. To take another instance, in the late stages of some cases of cerebral tumours we may have localized signs, perhaps unilateral convulsions, which yet have no localizing significance. For example, a case has been diagnosed in the early days of the illness, quite correctly, as one of cerebellar tumour; later in the course of the disease, when the intracranial tension is increased, and perhaps a certain degree of hydrocephalus has developed, the patient may have one-sided fits, and yet at the autopsy nothing is found in the cerebrum to account for them, so again we are reminded that unilateral convulsions do not necessarily mean a localised lesion, that unilateral convulsions by themselves have no necessarily localizing significance.

The next important cause of convulsions in children is the onset of some febrile disease, particularly the specific fevers, measles, scarlet fever, whooping-cough, small-pox, and so on, or a comparatively slight illness, such as tonsillitis, may be sufficient to produce them. In the case I have been describing to you the child suffered from whooping-cough. It was not a severe case except at the commencement, and the ultimate course proved that the convulsions were chiefly due to the child having rickets. In whooping-cough the onset of convulsions is generally of grave import, and means that a severe attack will follow.

The third important cause of convulsions is a gastro-intestinal irritant. Not only in infancy, but up to the period of second dentition, gastro-intestinal irritants may give rise to convulsions. There is a case, among others of this kind related by Henoch, *viz.*, a child 3½ years of age, who at midday partook largely of cucumber salad and plums. In the evening convulsive seizures occurred, which, with intervals of coma, lasted for two hours. Cold compresses were applied to the head, an emetic and enemata were given, and the coma passed off. Since I made up my mind to talk about this subject, we have had an interesting case of this kind in Clinical Ward. A little girl, æt. 5 years, was admitted on account of drowsiness, diarrhœa, and vomiting. The child had had no illness of importance previously, but she had "never been very strong," and during the last three years she had been subject to fits, ten to fifteen in all. She was in her usual health two days before admission. At 4 a.m. on the day before admission she was suddenly taken ill with diarrhœa and vomiting, which continued. She had two fits on the day of admission. On the night previous to her attack her supper consisted of tomatoes and fried haddock. On admission the child was apparently seriously ill. She was lying curled up in bed, and was very irritable; her lips were blue, and the pulse was very small and weak. We found no evidence of organic disease. The temperature on admission was 101°, pulse 160. We gave a purge, and with the exception that she was packed round in bed with hot-water bottles, etc., and given a little stimulant, we left her alone. After the purge had acted the child still remained in a drowsy condition, and continued so for two days; she is now quite well. So here a gastro-intestinal irritant had presumably caused convulsions in a susceptible subject, one who possibly is an epileptic, or is on the road to become so.

The fourth cause to refer to is epilepsy, and it is impossible in any given case to say at first whether such fits are due to epilepsy or not. Epilepsy frequently begins in childhood, and convulsions in children with rickets may be the starting-point for the development of epilepsy later.

As regards treatment of the actual convulsions, it is clear that if a child is having one fit after another, it is no good to put that child into a hot bath, or to try and give bromide and chloral by the rectum; you must first do something to stop the recurrence of the convulsions, and that is readily effected, as a rule, by inhalation of a small quantity of chloroform. When the child becomes quiet you can then administer any drugs you may wish. If, however, the child is not having so many fits as to require the inhalation of chloroform, then a warm or mustard bath can be given, and an aperient. Calomel, one or two grains, may be given to a child a year old. The aperient is an essential in most of these cases, because a gastro-intestinal irritant of some kind is so frequently a factor in the causation of the fits.

Again, an emetic may be useful, and also potassium bromide, and chloral, administered by enema, the most frequently employed and useful method of administration in these cases. But, as in all cases for treatment, diagnosis comes first, and when that goal is reached the treatment follows as a matter of course.

You will have realised by this time the difficulty of arriving at a diagnosis in the early stages of many cases of convulsions in children, and of determining whether they are due to meningitis or some other intracranial disorder, or not. It is to some of the cases of so-called encephalitis I now propose to refer. The acute specific infectious diseases, as scarlet fever and pneumonia, acute anterior poliomyelitis, and toxæmic manifestations of various kinds, may produce symptoms which in the early days of the disease suggest a cerebral origin. One of the commonest causes is lobar pneumonia commencing with a high temperature and convulsions, or severe headache with vomiting, or a lethargic or semi-comatose condition. After the first twenty-four hours the signs of the local disease manifest themselves, and the cerebral symptoms may, and frequently do, disappear. In such cases the brain cells are temporarily disturbed, either by the dissemination of the poison associated with the onset of the disease, or by some general disturbance of the cardio-vascular system affecting the brain cells. Now if we pass on from these, comparatively speaking, mild temporary conditions of cerebral excitation or depression, we reach others where the effect produced is more severe and lasting, and consequently the difficulty in diagnosis is greater.

Case I.—In this connection I will tell you of a little girl, 3½ years of age, whom I saw on August 13th, 1908, with Dr. Cooper of Surbiton. The child had not been her usual self for ten to fourteen days previously; she had passed liquid offensive motions at intervals, and had been sick once or twice; she had occasionally screamed out for no apparent reason, and had been content to lie about, which was a very unusual thing for her to do. Dr. Cooper, when he first saw her on August 11th, found she had a dirty tongue, and that her breath was offensive; there was no rise of temperature, and nothing to indicate a serious illness. On August 12th Dr. Cooper had been to see the child again; she seemed better and the sickness had ceased. The parents said that about 11 a.m. on August 12th, very shortly after the doctor had left, the child seemed to be unconscious, that she had a far-off look, and spoke to no one, nor did she reply when spoken to. This condition was interrupted by attacks of loud screaming. This state continued during August 12th and 13th; I saw her at 10 o'clock on the evening of August 13th, when she was unconscious; the only thing which seemed to have any effect upon her was the lifting of her eyelid, which she appeared to resist. Every two or three minutes the child had attacks of most piercing screaming, immediately followed by general rigidity of arms, legs and body, and convulsive movements. The eyes were turned to the left; there was no rigidity of the neck or back muscles in the intervals of the convulsive seizures. There was no disease of the ear, and no physical signs of disease were detected anywhere. The temperature was 101°F., and pulse 112. There was no definite optic neuritis. Kernig's sign present. This condition continued throughout August 14th until the 17th, and, except that the child seemed more comatose at first, there was no other change during these days. On August 17th she became more conscious, although she still had a "far-off stare." Next day she showed evidence of returning consciousness, and from that time she gradually improved. Dr. Cooper tells me that at the present time she is quite well in every way. Thus this child was almost completely unconscious for five days with convulsions at intervals, and I thought, taking into consideration the history of being "out of sorts" for ten to fourteen days previously,

together with other features of the case, that she was probably suffering from tuberculous meningitis. There was no ear disease, and no evidence of cerebro-spinal meningitis. It is true that there were none of the cranial nerve paralyses so frequently present in tuberculous meningitis, but anomalous cases of this disease are so comparatively frequent that we did not place much importance upon their absence. Being cautious, we gave a guarded prognosis, although it seemed a very remote possibility in this case that we were mistaken either in the cause of the condition or in the result which was likely to ensue, but in a week she was well.

This case was a more marked example, a further stage, of the passing condition of cerebral excitement to which I referred in the case of the rickety child with whooping-cough, and of the case of pneumonia. It cleared up too quickly for meningitis. Nor is it likely that although the condition of the child was so precarious for five days, yet that, considering the sequence of events, there was any serious inflammation of the brain. The disturbance of the brain was, however, considerable, and so I think the case must be included among those of encephalitis.

Case II.—The next case is that of a girl of 16 years of age, who was under my care in "Clinical" last year. She was admitted on July 30th, 1908; she was unconscious, and her temperature was 104·8°. On July 18th she returned home from a walk complaining of severe headache with pains behind the eyes, which persisted for some time. A doctor saw her a few days later, when her temperature was 102°. Her motions were semi-fluid and yellow in colour. On July 27th, the ninth day of the illness, her temperature was still high; she became partially unconscious, and failed to recognise her relatives. Twitching was first noticed in the muscles of the legs and of the right side of the body on this day. At first she had gradually become more irritable; later she was oblivious to her surroundings, and lapsed into a state of semi-consciousness. On July 30th, when admitted, she was lying in bed turned towards the right side, and she much resented being moved. The arms were firmly flexed on the forearms; the legs on the thighs; and the thighs on the trunk. At intervals she exhibited twitchings in various groups of muscles. The neck and back were kept rigid, and the jaw very rigid, so that we could not open the mouth for more than a quarter of an inch. There was incontinence of urine and fæces. The face was flushed; the expression was blank and stupid. There were numerous rose spots on the abdomen and chest; a trace of albumen was present in the urine. The leucocytes were 6,000 per c.mm.; the differential count was normal. On August 1st she was more comatose, and lumbar puncture was performed, when clear fluid came away, and the general rigidity seemed to lessen in consequence. On August 3rd she became more comatose again; 15 c.c. of fluid were drawn off by lumbar puncture. Bacteriological and histological examination of this fluid was again negative. Thus it seemed almost certain she was not the subject of any variety of meningitis. The diagnosis arrived at was that of encephalitis in typhoid fever. The temperature chart is a typical one of that disease, and later a relapse took place. On August 7th the temperature was gradually falling, and the mouth could be opened a little; the twitching of the muscles was also less marked. On August 9th she recognised her relations for the first time, and attempted to speak, but could not do so. On August 11th, *i.e.*, fourteen days after admission, she was able to swallow for the first time. On August 16th she had a relapse, but passed through it quite well, and the cerebral symptoms gradually disappeared. On testing her memory for recent events, on September 12th, it was found she could remember nothing after about July 18th. Towards the end of September the patient, though still weak, was sent to a Convalescent Home; in all other ways she seemed to have quite recovered. During the fortnight in which she was unconscious and unable to swallow she was fed with the nasal tube. I feared that, considering the severe nature of the cerebral disturbance, there would be some permanent loss of intelligence, or of interference with the power of speech, or of deafness, perhaps, but when she left the hospital there was nothing of the kind, and nothing has developed since. I wrote and asked her to come up to-day, so that you could see her. As you can see, she is in excellent health both in mind and body, and she tells us that she feels perfectly well in every way, and that her severe illness has left no ill-effects This patient was, however, the subject of serious derangement of the cerebral functions, associated with signs of cerebro-spinal irritation, lasting for at least fourteen days. In view of the fact that we were able to eliminate the question of meningitis from the examination of the cerebro-spinal fluid, I think that the case is to be regarded as one of encephalitis in typhoid fever, with probably marked vascular changes and less marked

inflammatory ones, but the changes in the brain were not of so gross a type as to lead to permanent changes in the brain tissue.

Sir Thomas Barlow gave a most interesting presidential address before the Neurological Society, in 1906, on "Some of the Nervous Complications of the Specific Fevers;" it is published in *Brain*, vol. xxix., 1906. Later I shall refer to several of the cases mentioned by him in his address. Some of the cases presented cerebral, and others chiefly spinal symptoms. From pathological evidence we know that, for example, in erysipelas and in typhoid fever, minute foci of encephalitis occur, characterised by aggregations of leucocytes, and sometimes by the presence of bacteria. The influenza bacillus and the meningococcus have been found in encephalitic foci on several occasions, and there is no reason to doubt that the poisons set free by them may affect severely the cells of the brain and spinal cord. Probably in children recovery from inflammation of the brain is more frequent than in adults, and so the difficulty of being sure of one's diagnosis must often arise. In infants various investigators have drawn attention to a clinical group commencing with violent cerebral symptoms, leading to death, in which a well-defined encephalitis has been found. Clinically they are cases in which stupor, followed by coma, occurs early, perhaps associated with convulsions and rigidity and a high temperature.

Case III.—I should now like to refer you to one of the cases mentioned by Sir Thomas Barlow, as it is of a more severe type than any of those already related, and an exhaustive autopsy was made. The patient was a policeman, 23 years of age, suffering from a severe attack of measles, with a profuse rash. On the fourth day after admission he was very drowsy, and could be induced to answer questions only in an irritable way. There was no head retraction; the grasp of his hands became weak, and the voluntary power over his lower limbs was lost. Plantar reflexes and knee-jerks were absent. In addition to the above-mentioned paralyses he developed paralysis of the intercostals. Death ensued eleven days from the onset of the illness. At the autopsy in that case there was no meningitis, no tuberculosis or syphilitic disease, and the viscera exhibited no pathological lesions to which the symptoms could be assigned. The grey matter of the cerebral convolutions was darker, and the brain substance softer, than natural; there was no gross cerebral lesion. The whole of the spinal cord was softened and swollen. On histological examination the changes are described as being entirely vascular; they varied in intensity in different parts, and were most marked in the spinal cord. Many vessels were surrounded by coagulated exudation and by an infiltration with leucocytes; small hæmorrhages were present. There were no changes in the nerve cells or nerve fibres.

With similar, but less extensive lesions to those described, it is conceivable and possible that complete recovery might take place, and I think that is probably what did happen in the case of the little girl of whom I first told you, who was unconscious for four to five days, and of the second patient, who had typhoid fever.

In the severe case of death from measles, related by Sir Thomas Barlow, the pathological changes were well marked, consisting of inflammatory foci and of small hæmorrhages and patches of softening.

The cases to which I have drawn your attention are examples of a similar class, varying in their degree of severity, and, as Sir Thomas Barlow and others point out, the lesion is probably of vascular origin because of the sudden onset.

Dr. Batten, arguing from analogy of similar cases of acute onset giving rise to cerebral symptoms and cranial nerve paralyses where the cause has been demonstrated, states his belief that they are of like origin to some cases of anterior poliomyelitis, viz., to a thrombosis of the very small vessels in some part, or parts, of the brain.

Before proceeding to the question of prognosis in these cases, I will tell you shortly of two other interesting cases belonging to this group.

Drs. Prickett and Batten reported the case of a boy of nine years of age who suffered, with other members of his family, from a moderate attack of influenza. He was allowed to go to a children's party and his cough became worse. Five days later the boy woke up with an odd sensation in his right arm, and this was shortly followed by paralysis of the right arm and leg, deviation of head and eyes to left, and aphasia. He became drowsy and comatose, death ensuing three days from the onset of the paralysis. At the autopsy engorgement and thrombosis of the sub-cortical vessels of the cerebral hemispheres were found, especially on the left side, and there were extravasations of blood and of round cell exudation in the region of the vessels.

Dr. Batten also quotes two cases of encephalitis in which Pfeiffer's bacillus was found.

Another interesting series of cases after influenza is to be found in the *British Medical Journal* for June 6th, 1908, reported by Dr. Saundby. As a contrast to the last case there is one mentioned of a man of 55 years of age who, after what was thought to be influenza, had a sudden and general epileptiform convulsion, and was comatose for two days, during which time he was lying in bed with legs curled up, and in whom facial contractions frequently occurred. This man completely recovered.

Prognosis.—It must always be grave, though tempered by hope, particularly in the case of young people—those who have passed the stage of infancy.

Can we imagine anything more alarming, or symptoms more calculated to make us say that a patient was likely to die, than those I related to you in the case of the little girl who was unconscious for four to five days? Yet we see that neither repeated convulsions nor prolonged coma, with other complications, such as asphasia and complete relaxation of sphincters, are necessarily associated with fatal results to the patient. On the other hand, although recovery may occur, yet it may be incomplete.

The cases of recovery group themselves roughly, as Sir Thomas Barlow points out, into two classes :—

1. Complete recovery in three to four weeks; such cases frequently show some signs of improvement within a week; others, however, may take considerably longer, and yet recovery follows in process of time.
2. Improvement up to a certain point, but leaving some defect, *e.g.*, paralytic symptoms, or ataxy, may persist, or epilepsy or idiocy ensue later.

To take one or two examples of the results of these cases in relation to prognosis. Dr. Batten records a case of a boy who had measles in March, 1904, in whom, after an onset with vomiting, unconsciousness, and general convulsions, there remained slow hesitating speech, inability to sit up, and some inco-ordination in the upper and lower limbs. At a later period the boy's moral sense was much perverted. Here there is little doubt that the case was one of encephalitis, in which the cerebellum was the part most severely affected. Fifteen months later considerable improvement had occurred, and eighteen months from the attack of measles very little evidence of the condition persisted.

Another type of case is recorded by Dr. Dawson Williams in 1894, of a girl of $3\frac{2}{3}$ years, who was seized with convulsions while the rash due to measles was present. She was unconscious for ten days, and on recovery from that condition she was unable to speak or to use her limbs properly. There was paresis of all four limbs, and partial anæsthesia, also difficulty in deglutition. In six weeks she had much improved, and was able to walk and talk a little. Then "intention" tremors began, and her speech, which had been affected throughout, remained of the syllabic type. Knee-jerks exaggerated, gait spastic. When ten years old she could walk six miles, rapidly and steadily, with short steps, but she was easily upset. She was backward at school.

The probable explanation of this case is that small patches of sclerosis had formed as a sequence to the vascular changes of the early stages of the disease.

Another very interesting case, especially in regard to prognosis, is one recorded by Dr. Frederick Taylor in the *Lancet*, November 10th, 1904. This case shows how complete recovery may be even after a long period of time.

A boy of four years of age, admitted into the Evelina Hospital in June, 1875, had had an attack of whooping-cough three weeks before. He had twitchings of the hands and feet, was ataxic, and weak in his legs. The trembling of the limbs and trunk simulated that of insular sclerosis. Nystagmus was present. In August the boy had regained some power in his legs.

Dr. Taylor saw him nearly two years later, when he still seemed to have very little use of his legs. On level ground he could get along, but like a drunken man. His speech was hesitating and articulation indistinct.

In 1878, three years later, his mother wrote that he had wonderfully improved in the last twelve months, and was able to run and bowl a hoop. Dr. Taylor saw him next in November, 1904. He was then 33 years of age and a clerk. He remembered little of his illness; he thinks he was quite well by eight to nine years of age. There were no signs of the former illness; his muscular power was good, and he was active and played hockey.

In conclusion, we recognise that cases of encephalitis may, in the early stages, be impossible to distinguish from a meningitis or other acute intracranial lesion, but that where severe cerebral manifestations occur, particularly in the early stages of an acute illness, encephalitis is to be remembered as a likely cause. That, although the prognosis is more hopeful than in most cases of meningitis, yet it must always be a grave one; that there is nothing in the early

days of the illness which will help us to say whether the child is likely to improve or not, but that if, at the end of a week or less, symptoms of a reawakening of the mental faculties occur the prospect of recovery is improved; that even if recovery does ensue the prognosis must be qualified by the possibility of a local or general deficiency remaining in some part of the brain.

Lastly, even though a cerebral defect persists for a year or more, yet there is always a chance of its disappearance in process of time (*vide* Dr. Taylor's case).

Guy's Hospital Debating Society.

The first debate of the Session was held in the College Smoking Room on Saturday, October 23rd. Dr. Shaw presided over a full House.

Mr. F. E. Fremantle moved:—"That this House strongly disapproves of the present Budget as representing principles opposed to the best interests of the Nation." He drew attention to the short time at his disposal for dealing with so large a subject, and, as the most comprehensive method of attacking the question under such conditions, briefly outlined the various clauses of the Budget, and considered their aims and fallacies. The Chancellor of the Exchequer had been brought to face a certain deficit, mainly due to two causes. The first of these concerned Old Age Pensions. The idea of Old Age Pensions had not been originated by the Liberal Government, but had been suggested by the Conservative Government many years ago. The latter had not carried the idea into effect through lack of funds—their first consideration was to make both ends meet. They had later proposed to find the money by Tariff Reform. The second cause of the deficit was occasioned by the demands of the Navy. These demands might have been met in other ways. Tariff Reform was not the only alternative to the Budget. The first item presented by the Budget was the increased income tax, accompanied by the super-tax. The rich would not give up their luxuries when taxed, but would rather diminish their main expenditures, subscribe less to industrial securities, and naturally the home industries would suffer most. Employment would thus be diminished. The increased death duties would have the same result. The stamp duties also would tend to drive trade into other countries; a country was largely dependent on financiers for its welfare. The liquor licences would deprive the working-man of light, warmth, and intellectual conversation, as well as beer. The tobacco taxes would also affect the working-man and deprive him of a hard-earned luxury. The effect of the land taxes would be to destroy for ever the "back to the land" ideal; a tax on a commodity necessitated an increase in its price. The main issue was employment; the Government had no definite proposals in this direction; they were driving capital from the country. The speaker concluded by drawing attention to fatal admissions recently made by responsible Government orators.

Mr. A. Sandison, in opposing the motion, said the proposer had scarcely mentioned the land clauses, and that this gave him a welcome opportunity of addressing the House on that most important question. Dealing first with his opponent's arguments, he reminded the House that, though Mr. Chamberlain had promised Old Age Pensions many years ago, it was only quite recently that he had conceived the idea that Tariff Reform could pay for them. With regard to the taxation of capital, he declared the hon. proposer's words to have been nothing more than a lament of the rich. Also, selling out did not imply money leaving the country: there must be buyers wherever there are sellers. If, as the hon. proposer said, the poor were paying one half of the taxation imposed, surely the wealthy ought not to grumble. We were, according to the motion, present to discuss the principles of the Budget. Well, a main principle of the Budget was the taxation of the luxuries as opposed to the necessities of life; moreover, the direct taxation of the Budget was bound to be better than the indirect taxation of Tariff Reform, and, seeing that something like three-quarters of a poor man's income has to be spent on food, a tax affecting food was surely reprehensible. Coming to the question of land, he made it clear that the land had hitherto been held up by a few people—was, in fact, a monopoly. It should, he said, be more equally and fairly accessible as far as the whole people were concerned. The present system did not allow of land being obtained in districts where it was most wanted. There were innumerable instances of extraordinary tolls being levied on the falling-in of leases. Finally, it was entirely just that the increased value of land should pay its share towards the expenses of the State. In conclusion, he compared the evils of the land system to a hernia; many trusses, he said, had been used, but with small success; a radical cure was now imperative, and was being carried out by the Radical party. There was, however, a further complication, in the form of an acute attack of appendicitis; in other words, the inflammation of a purely vestigial organ, our old Nobility—the House of Lords.

Mr. E. J. Charter seconded the motion. The crux of the whole matter was employment. England compared badly with protectionist countries in this respect. Employment would decrease as capital was driven from the country. Tariff reform would bring back employment. It was illogical to tax the land and not other forms of security. Naval supremacy must be maintained. The question of leases, *e.g.*, the Gorringe case, had been misrepresented. It was absurd to say that food was not taxed, and that free trade prevailed. He hoped we never should reach a condition when it would prevail.

Mr. T. I. Bennett seconded the opposition. He gave a short historical account of liquor legislation during the

last century, showing how disastrous had been the results arising from the cheap and easily accessible licences at one time granted. But it was impossible to make a nation good by legislation. What concerned the question more closely was the fact that the State had built up a monopoly for the benefit of brewers and publicans practically unaided and practically unrewarded by them. He outlined the Development Bill, and briefly pointed out the advantages it promised. (His speech was repeatedly interrupted by Dr. Mann and Mr. W. Cook in the capacities of brewing and agricultural experts respectively).

Mr. J. A. Ryle said the proposer and seconder of the motion had committed themselves to the same fallacies with regard to unemployment as were being voiced by the Tory press and speeches throughout the country. Every penny of the sixteen million pounds to be raised was to be used in such a way as to better the conditions of employment for the working classes. If the Budget proposals, as tending towards social reform, became spoken of as Socialism, then in his opinion they represented a Socialism of which no man need be either ashamed or afraid.

Mr. O'Callaghan suspected that the Budget represented a question of party politics rather than the nation's balance-sheet. It was calculated to gain the vote of the working man. A Budget should attack least those who have the greatest stake in the country. He suggested a tax on matches as a means of filling the gap.

Mr. Mandel asked how the Budget would deal with unemployment. Protection must necessarily mean an increase in employment. The Budget was leading us to Socialism. He drew a fearful picture of some country he had recently visited which had fallen a prey to that dread monster.

Mr. Hopkins said that the "dukes" as a class were taxed more than the working man.

Mr. Stanley Cock said that employment was going abroad. The Budget was taxing brains, and was doing nothing for the good of the people. It was merely a method of self-advertisement.

Mr. G. Marshall pointed out that land was not a commodity—it should be open to the people. He offered a solution of the employment question other than Protection.

Mr. Dean criticised certain remarks made in favour of the Budget, and in other ways showed his disapproval of the principles underlying its proposals.

Mr. Neft pointed out the unpatriotic action of capitalists in investing abroad. He also declared that the landowners, having filched the people of the land, ought not to complain of taxation. He convulsed the House with a dramatically told "chestnut," which was most apt in its application.

Mr. F. Cook spoke of the justice of the principle underlying the increased death duties, and welcomed the £10 rebate on each child as representing the introduction of a principle demanded by science.

Mr. Stephens supported the Budget as being a truly Liberal measure, and embodying the ideals of economists of all ages. He emphasised the justice of the maxim that the broadest backs should bear the biggest burdens. Another great principle of Liberalism was the destruction of huge monopolies, and this principle the Budget was carrying out in its attack on the land and liquor monopolies. He brought forward several arguments to the effect that the Budget principles were not socialistic, and concluded by expressing his confidence in the Liberal party, which was quietly and efficiently doing the work of the nation in the midst of Socialist shouts on the one hand and Tariff Reform outcry on the other.

Mr. Sandison, in an excellent speech, declared that it was unjust to say that we were rushing headlong into Socialism merely because the Budget was approved of by the Socialist party. It was nonsense to say that it was fair to tax the poor as much as the rich, on the sole grounds that their total income equalled that of the rich. He was, he said, a Liberal, and not in favour of nationalization of the land.

Mr. Fremantle expressed his pleasure at having been privileged to hear so many able speeches from both sides of the House. He believed that the Conservatives were a more practical party, in spite of upholding the theories of the Liberals. He also replied shortly on the licensing clauses.

The Chairman congratulated the House on the excellence of the debate, and then put the motion to the vote. The motion was carried by 44 votes to 19.

Pass List.

University of Cambridge.

Degree of Doctor in Medicine.

W. Herbert Brailey, Queen's.

Degrees of Bachelor in Medicine and Surgery.

C. Colgate Holman, Gonville and Caius.

Second Conjoint Examination, Oct., 1909.

Anatomy and Physiology.

H. A. Ash.	C. H. G. Penny.
G. W. King.	J. L. Perceval.
E. M. MacMahon.	M. Pern.

H. Sharpe.

First Conjoint Examination, Oct., 1909.

Part IV.—Practical Pharmacy.

L. Bromley.	H. F. Percival.
N. S. Carruthers.	J. Pryce-Davies.
H. H. Davis.	C. D. Roberts.
J. A. Delmege.	A. L. Saul.
D. C. Lloyd.	T. S. Sharpley.
C. H. Mills.	W. H. Watson.
R. G. Oram.	L. G. White.

A Minister of Public Health.

By Arthur Todd-White.

The health of the community is the most important subject which any Parliament has to consider, be that Parliament Conservative, Liberal, or Socialistic. It is no use making laws dealing with the wages of the working classes if their health is not also a primary consideration. It is no use keeping up a great Navy and Army to keep away our enemies unless we deal at the same time with our internal enemies "dirt" and "disease." As we have a Minister for War to deal with a possible foreign foe, so it is much more important to have a Minister of Public Health to deal with our internal foes.

The Government has no hesitation in granting £20,000 for an expedition to the Pole, which no doubt is right, but what grants does the Government make to the medical profession? What grants has it made to cancer research? How much radium has it placed at the disposal of the profession? What convalescent homes has it established? Where are the consumptive Sanatoria it has built? Are the grants for medical research in proportion to this grant for the Polar Expedition?

A Minister of Public Health, who should be a medical man with a fully-established department, would be in a position to urge on the Government the necessity of dealing with these matters; they should not be dealt with by other departments. I suppose at present the medical law of school children is under the Education Department, and other matters of medical import under the Local Government Board.

It is quite time a special Health Department is formed; it has been a matter for scandal for years that such has not been established.

This department should appoint all the medical officers holding public appointments, and should itself hold a competitive examination for them, similar to that held for the medical services in the Navy and Army. All Medical Officers of Health should be so appointed, and should hold their appointments under the Government, and be paid directly by them. They would then be more independent in their work, and, moreover, those who distinguished themselves could be transferred to larger spheres of work with increased pay.

A school for these Medical Officers of Health should be established, say, in town, where the successful candidates could continue their studies at the expense of the Government, and where not only the subjects which deal with health in England, but also tropical medicine could be taught.

It is no use doing a bit here and a bit there, tinkering with the health of one quarter of the inhabitants of the globe, but a Ministry of Public Health having been established in the Mother Country, the Colonies would take pattern from it, and form their own Ministers of Public Health. As a matter of fact, the Colonies in some cases are ahead of us in this and other matters which deal with the health of the people.

Take, for example, ambulance arrangements. What does our Government do for this department? In some colonial towns the ambulance brigade is as much an established institution as the fire brigade, and why not? Surely more lives are lost through neglected street accidents than could possibly occur through fire, even if the fire brigade had not attained to their present perfection. Look at the disgraceful state of the ambulance service in London until recently; now the County Council has purchased a few motor ambulances, which I understand are under the charge of the police.

A Minister of Public Health would see that proper ambulances are established in every town in the country with trained men always on duty, who would be "ambulance" men purely and simply, and not also policemen. They would have ambulance men stationed always at the crossings and roadways where accidents are most common.

The members of the St. John Ambulance Association have done a very great work in this direction, but with few exceptions they are volunteers, and not always on duty. The vast amount of work done by this organisation of volunteers, many of them working men, has not been realised by the public, but the fact that they have done so much when they are on duty on Bank Holidays and the like, is a proof how necessary it is to have a permanent establishment, and, in fact, a Minister of Public Health would do well to recruit for his Government Ambulance Service from amongst the members of that most useful association.

The reason a fire brigade is so much ahead of our ambulance arrangements is two-fold. Firstly, because valuable property might be destroyed, and secondly, because valuable lives might be sacrificed. There is a good deal of sentiment about the public. Death by fire is horrible, and appeals to this sentiment, and more notice is taken of a death by fire than a dozen deaths by street accidents. It is the same sentiment which makes more fuss over a few soldiers killed in battle than the thousands whe are killed in our streets and factories, so we have now, I believe, an efficient medical service for our soldiers, but the public sentiment has not gone far enough to obtain an efficient medical service for our streets and factories. Most of the latter have, however, established ambulance departments, but who in these days of motors is to superintend the medical service of our streets, unless we have a Minister of Public Health?

The appointment of coroners should also come under the jurisdiction of the Minister of Public Health. There was considerable friction between the coroner and the medical men in this locality a short time ago; a Minister of Public Health would very soon have settled this storm in a teacup. It was perfectly obvious what had to be done, but as we had no minister, like hundreds of other medical troubles it had to be left in a most unsatisfactory position.

All coroners should be medical men who have qualified as barristers. The office of coroner is undoubtedly a medical office, and a great deal of medical, in addition to a certain amount of legal, knowledge is necessary.

The appointment of vaccination officers would come under the health department, but as such a simple operation can be performed by any medical man, and practically requires no skill or special knowledge, the Minister of Public Health might advise His Majesty's Ministers that no such appointments be made, but that all patients should be vaccinated by their own medical men at the expense of the rates; the Minister of Public Health would also see that vaccination be made compulsory.

The Minister of Public Health would deal with vivisection, and see that the Act was complied with regarding this department, and whilst having due regard to the views of the anti-vivisectionists, he would protect the members of the profession from lying criticism, and from the verbose attacks of sentimental and hysterical bigots, who run madly to cry out against vivisection or experimenting on animals and are amongst the first to fly to the remedies the knowledge of which has been obtained in this way.

Town planning and housing is also a matter for the Public Health Department in so far as it affects the health of the people, and the Minister of Public Health should cause such medical evidence and statistics as bear on this subject to be collected together and place them at the disposal of the Local Government Board, under whose special wing this matter would come. Rows of houses, unsurrounded by gardens, are a cause of degeneration in the sight of the rising generation; more green and more "distance" are required for the eye to rest on; moreover, the speculative jerry builder crowds his houses together, and leaves the tenants hardly enough garden in many cases even to swing the proverbial cat. The lives of people who have even a small garden are much healthier by reason of it. For several months in the year, even in our treacherous climate, a few hours a day can be spent out of doors by men, women, and children, and what a considerable difference this makes to the health of the community is hardly realised; during the summer months they lay in a store of health which helps to carry them through the winter. But let us look at the overcrowded districts without gardens. There we find the health of the community in the summer is, if anything, worse than in the winter. The absence of gardens and the stuffy room drive the husbands or often the wives to the nearest public-house, and as we have no beer gardens on the continental system (we must blame the climate, I think, for this), these men and women sit hour after hour in the public-house, and oh! how these places smell in summer of alcohol and of stale tobacco.

The supervision of water supplies throughout the country is a matter for the Public Health Department, and how much common sense is required, for in some cases wells have been condemned, and landlords put to enormous expense in bringing water from a distance owing to some antiquated Local District Council's regulation. Again the "back to the land" schemes have been made impossible by the numerous extravagant regulations of local bodies who will not allow any kind of building to be put up. One of our greatest social reformers said he would have no difficulty in peopling our country districts if the pioneers could put up huts, etc., at first, as they do in the Colonies, but as landlords cannot be expected to put up up-to-date houses for no rent, and the would-be settlers cannot afford to put them up themselves, you cannot, and never will, get the community back to the country, and yet surely a small shanty, if under the Medical Officer of Health for the district, kept clean and healthy, is a thousand times healthier and better than living in closely-packed streets of a city. This is a case where legislation on sanitary matters has overstepped the mark, and is just having the opposite effect on the community at large to what was intended; owing to this, and this alone, crowds of people are driven into the cities to live crowded and unhealthy lives, when they might, in a few years time, have worked up a poultry or other farm, and built themselves splendid houses. I know one District Council refused to allow a man to put up a tin and wood bungalow in the middle of an acre of ground, for fear of fire. The acre of ground is given up to weeds, and the man lives in a row of houses, in front of which a District Council dumped all the dirty road scraping after a snow-storm.

If our Medical Officers of Health were under an enlightened Minister of the Crown, and responsible to him only, and not to the often peculiarly constituted and ignorant Councils, there would be some hope for "Back to the Land Schemes."

These Councils insist on the walls being a certain thickness, the windows a certain size, the drains and baths of the latest pattern, and altogether prevent any houses in some places being built. Why railway carriages can be considered suitable residences at some seaside resorts and not in other places passes man's understanding, and why a bungalow in the middle of an inland field should be more likely to catch alight than one on Shoreham beach, I don't know; but if people could put up temporary residences such as these, and be responsible to the Medical Officer of Health, under the Minister of Public Health, for their sanitary condition, a great stride in the direction of getting people to remain in the country instead of crowding up our towns would be made. I have heard that often three or four families live in one room in the East end, and I myself have seen six children, ages six to seventeen, in one bed in the Borough, three boys sleeping one way and three girls the other, with their feet mixed up in the middle. I think a railway carriage in the country would be better than this. These matters distinctly come under the Public Health Department.

Child labour, hours of work in mines and factories, dangerous trade occupations, etc., are all Public Health matters, and undoubtedly the medical profession knows

more about these than anyone else. I remember in one appointment I held, I used to get a number of patients with anæmia; they practically all were girls working in one particular room at a factory; it wanted better ventilating, and I mentioned it to the manager, and after the room had been altered, saw no more cases.

On the subject of temperance reform the Public Health Department would have much work to perform, and might obtain much valuable information for legislation purposes. The profession itself is unfortunately divided into two camps on the subject of alcohol, that is, as to its use as a medicinal agent, some members contend that the administration of alcohol during illness often leads to the patient becoming intemperate; these cases are, of course, cases where the patient does not really require it; for example, after prostration nurses sometimes persuade patients to take alcohol, but this is a mistake. In many cases, on the other hand, it is administered when it is a case of life and death, and to *withhold it on these occasions is criminal*; there is *no substitute for brandy* and never will be, and I am absolutely positive it has saved many a patient's life in my own practice, and I cannot think of one who has become intemperate through having it when *in extremis*, and it seems to me to allow people to die just because about one per cent. might become drunkards is ridiculous, and I daresay even that one per cent. would be better alive as drunkards than under the sod as teetotalers. On alcohol the Minister of Public Health would be able, after an exhaustive inquiry, to place facts before the profession, and to lay down rules for their guidance in its administration.

Grants to scientific bodies and to distinguished research students would require consideration, and great help could be given in this way, and would be a boon not only to our own country, but to humanity at large.

As a profession we are not supposed to expect rewards, but we are only human after all, and rewards are sweet, and there should be a Minister of Public Health who would have an eye to the doings of the brethren, and as he thought fit distribute appointments and awards to the "Masters of Medicine and Surgery." This would be great encouragement and incentive to labour, and lead on into unexplored realms and pastures new; everybody needs encouragement, and the only way a medical man can get rewards at present is to make a reputation which reaches the public, and the man who is doing research work does not often succeed in this way.

The administration of laws relating to food and drugs is purely and simply a matter for the Department of Public Health.

We are always getting the credit of alarming the public by scares, such as "typhoid fever from eating oysters," the "tin meat" scare, etc.; the Public Health Department would investigate these matters and be able at once to issue an authoritative statement about them and allay the public panic. The adulteration of food is doubtless alarming, but with all the Medical Officers of Health in touch with the Minister of Public Health a greater check than is possible at present could be kept on these matters.

Patent medicines call for much inquiry and fresh legislation, and who but a Minister of Public Health can possibly go into this matter in a practical way? If we are represented by only about ten medical men in the House of Commons and one in the House of Lords, how can we expect proper legislation on medical subjects? Unqualified medical practice, quacks, bone-setters, and the like could be handled in a skilful and business-like manner by our Minister; the present Medical Council either will not, cannot, or does not know how to do these things. Moreover, the power of crossing a delinquent brother off the register would rest with the Minister, and the medical power must be in the hands of a man who must not only be a doctor, but must be a man of metal, shrewd, and business-like, a practical man, a scholar, not a bookworm, a man with a good head, good brains, fearless, and with a large heart. Such a man would benefit not only us professional men, but the nation at large.

Let us, therefore, put our shoulders together and demand that the post of Minister of Public Health be created, and then we shall have no difficulty in finding a man, and many more to follow him in this most important post. But if the race is to degenerate, if it matters not whether cancer and tuberculosis is stamped out; if it matters not that degenerates marry and produce degenerates; if overcrowding, intemperance and vice are to be allowed to run rampant through the land, then let us have no Minister of Public Health, for if we have, *the old order changeth of a surety, and the race will* improve; with proper organisation cancer, tuberculosis, and intemperance may be stamped out for ever, and this proper organisation can only exist in the form of a properly-constituted Ministry of Public Health.

Change of Address.

Lieutenant F. A. Barker, M.B., I.M.S., from the 33rd Cavalry, Secunderabad, to 75th Carnatic Infantry, and Senior Medical Officer, Trichinopoly, South India.

E. E. Henderson, M.B. Camb., F.R.C.S. Eng., from 20, Queen Anne Street, W., to 6, Lower Berkeley Street, Portman Square, W.

W. P. Ker, M.R.C.S., L.R.C.P. Lond., from The Beeches, Walsham-le-Willows, Bury St. Edmunds, Suffolk, to Otterburn, Northumberland.

P. Seymour Price, L.R.C.P. Lond., M.R.C.S., from the College, Guy's Hospital, to King Edward VII.'s Hospital for Officers, 9, Grosvenor Gardens, S.W.

Stanley M. Wells, F.R.C.S. Ed., L.R.C.P. Lond., M.R.C.S., from Casilla, 924, Lima, Peru, to c/o Messrs. Armstrong & Borrowman, Valparaiso, Chile.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

A Case from Lazarus.

G. H., æt. 50, was admitted under Mr. Arbuthnot Lane on February 16th for malignant cervical glands on the left side. A year previously Mr. Golding-Bird had removed the right half of the patient's tongue for epithelioma, and the glands in the cervical and submaxillary regions on the right side.

On Admission a hard tumour could be felt on the left side of the neck, deep to the sterno-mastoid and adherent to the deep structures, but not to the skin. There was also an enlarged gland to be felt behind the left mastoid process. Patient complained of pain in the left side of the neck, radiating behind the left ear over the left eye. His general health was good, and he had not lost weight since the previous operation.

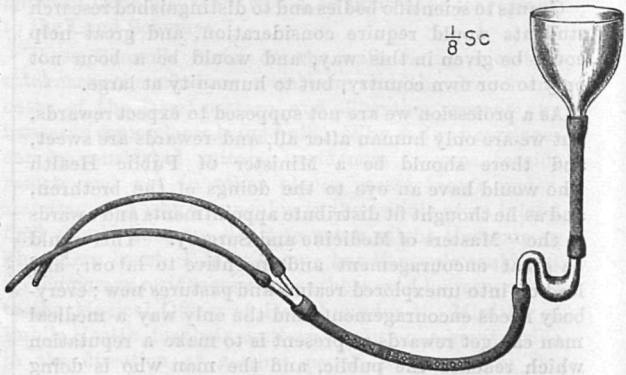
Operation.—On February 17th, $\frac{1}{200}$ gr. atrophine having been given subcutaneously, both legs were tightly bandaged up to the knees, and ether was administered by the open method. A large pad was placed over the abdomen and tightly bandaged, and the patient propped into a semi-sitting position by means of pillows.* A vertical incision was made from the lobule of the ear to the clavicle, and a second one at right angles to the first from a point half-way along the mandibular ramus to the outer border of the sterno-mastoid. The skin flaps being reflected and the sterno-mastoid pulled forwards, the posterior triangle was dissected until the carotid sheath was exposed. A Crile's clamp was placed on the common carotid, and the jugular vein divided between ligatures. The sterno-mastoid and all the structures superficial to the carotid sheath were now reflected upwards over the jaw. At this stage one of the diseased glands ruptured, and a brownish fluid exuded. This was carefully wiped up, and the cavity in the gland washed out.

The growth was found to be involving the arterial wall, a condition which is the cause of sudden death in so many of these cases. Accordingly a ligature was placed on the common carotid, below the Crile's clump, and other ligatures on the internal and external carotids near their origin, and the intervening artery removed. The vagus was found to be involved, but it was decided to preserve it intact. It was noticed that whenever the vagus was touched the patient missed one or two respirations. The cut sterno-mastoid, jugular vein, ansa hypoglossi, and the superficial part of the parotid gland were now dissected out and removed, together with the excised portion of artery in one piece. The posterior part of the submaxillary gland was also removed. The bleeding points were now ligatured, and all oozing of blood stopped with hot saline. The skin incisions were closed with Michel's clips and a drainage tube left in at the lower part of the wound. Late the same evening the patient's pulse became very feeble, and he had severe attacks of laryngeal spasm. Two and a half pints of hot saline were infused into the axillæ. At 12·30 a.m. ♏ xx. of adrenaline were injected, and a continuous rectal infusion begun at 2 a.m.

The next day the patient's condition had improved, but he was still troubled with laryngeal spasms, which continued for two days. He was given alternate nutrient and saline enemata four-hourly. He progressed steadily, and got up on February 27th. On standing, he noticed he was unable to see with the left eye, a condition which was, however, only temporary. On March 17th, twenty-eight days after the operation, he was discharged well. In May, however, the growth recurred, and he was admitted to the Rotherhithe Infirmary under Dr. E. Bell, who writes that there was a large sloughing growth involving the clavicle, with marked weakness and emaciation. On July 26th the patient became suddenly comatose, and died two days later. No post-mortem examination could be made.

The interest of this case is that it is the first in which the method devised by Crile has been used in England. The use of the clamp on the carotid in cases where the artery is not involved prevents bleeding, and so renders the operation easier and the infection of surrounding parts less likely. In this case the growth was so extensive that the prognosis at the time of the operation was said to be extremely bad.

Crile has devised a new method of giving ether in operations involving the neck and mouth. The apparatus is illustrated in the accompanying figure, kindly lent by Messrs. Down Bros. The back of the



pharynx is sprayed with a 2 per cent. cocaine solution, and the rubber tubes passed down the nostrils until they lie in the pharynx. The posterior part of the pharynx is packed round with gauze to prevent the swallowing of blood, etc. A pad of lint is placed over the funnel, and ether dropped on. The advantages of the method consist in the prevention of blood, etc., passing into the pharynx and larynx, the removal of the anæsthetist to some distance from the operator, and in the fact that it enables ether by the open method to be administered in oral operations.

E. G. S.

* Crile himself, the originator of this operation, uses a pneumatic suit, which reaches up to the umbilicus and is inflated with air. The object of this is to compress the abdominal veins, and so to raise the general arterial blood-pressure.

Sport.

Rugby Football.

GUY'S v. ROSSLYN PARK.

Both sides were well represented for this match, played at Honor Oak Park on Saturday, October 16th, 1909. Unfortunately rain fell heavily just about a quarter of an hour before play commenced, and continued to nearly half-time. The ground, soft to commence with, rapidly got worse and made the going heavy in the extreme. Still the game was most interesting and full of good football, especially the forward play, three of the four tries gained falling to the pack. Archer followed up the kick-off and was on to the ball before Rosslyn Park seemed to realise it, and over the line with a try immediately. It was a fine piece of work and deserved the applause which followed. Guy's were not content with all forward play, and Saner was sending out some useful passes, but naturally many were missed, although some of the three-quarters play was quite up to the usual standard. The next score, after some good play by Guy's forwards, fell to Stranach. Rosslyn Park got down dangerously after this, Bewsher being clear of Lacey, but the ball, now greasy in the extreme, slipped from him. Marshall and McFarlane led a dribble; but a very smart piece of work by Jones and Stokes averted trouble. Stokes fielded, and Jones dropping back received from Stokes almost on the goal line, and a beautiful punt found touch by the stand. From here Jones worked through and gave to Stringer, dodging Bewsher, Wood, and Dixon, he ran under the posts in delightful fashion. Stokes missed all three attempts at goal and half-time was taken.

In the second half play was more even; Guy's had to clear frequently. Lee got a full share of defensive work, and came in contact with "mother earth" so often that his jersey and later himself were scarcely recognisable. Halfway through this portion MacFarlane had to retire for a little, as he was very badly winded. Soon Guy's regained the upper hand, the forwards doing splendidly, and from them the next score came, Archer leading a dribble which took the ball over, Stranach finally touching down. Stokes added the major points. Rosslyn Park tried their best to get points; but the heavy turf was all against them, and the final whistle left the score 1 goal 3 tries (14 points) to nil, in Guy's favour. Team:—

Guys.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J. P. Jones, L. Stokes (three-quarters); J. G. Saner, A. H. Medlock (half-backs); H. R. Mullins, H. Archer, A. H. Crook, H. Hoby, A. V. Moberly, C. S. L. Roberts, W. S. Stranack, V. Glendining (forwards),

Referee: Mr. W. Williams.

Remarks.—The forwards all played remarkably well, and Glendining was by no means the least useful of a fine pack. Both halves gave a good display, and gave promise of better things still. The "threes" had a trying time, but all were good in attack and defence; Stokes in defending should not wait till the ball is kicked to him, but run in and meet the attack. Lacey was himself.

GUY'S v. U.C.S. OLD BOYS.

Played at Honor Oak Park on Saturday, October 23rd, resulting in a "walk over" for the hospital by 10 goals 3 tries, or 59 points to nil. The simple truth is that the Old Boys were lamentably weak, and that the hospital men were much too heavy and much too fast for them; and, as success breeds confidence, the home team could do nothing wrong as the afternoon progressed, and as the points totalled up. Guy's were not quite at full strength; Roe, Glendining and Millett deputising for Lee, Crook and Lacey respectively. Hoby was the first to score, and all through the afternoon he was at his best, following up with energy, and getting off from the "line out" at a rattling pace. Stokes converted Hoby's try, and almost immediately after Archer dribbled along very neatly. Medlock coming up, reached the ball to add the final touch. Again Stokes converted. The Old Boys now showed a momentary spurt but kicked too hard, and Jones soon sent them back with a good punt into touch. Again the visiting forwards attacked, and this time Millett had to touch down to prevent a score. Soon, however, Guy's were again in the visitor's "25," and Jones giving Stringer a long pass, the latter was over the line at a fine pace with the third try. Mullins and Stokes were responsible for the fourth try, and Stringer gained another before half time. Stokes kicked four goals out of the five tries, and the interval was taken, with Guy's leading by 23 points to nil.

The second half, with the wind in their favour, devolved into a procession on the part of the home side, and Moberly, who showed a good turn of speed, Stringer twice in succession, and finally Stokes, who added four tries off the reel, were scorers. Stokes kicked six goals out of seven shots this latter half, making his total for the afternoon 10 goals out of a possible 12. Stringer tried to convert the last try, but his attempt failed. The visitors were never dangerous after half time, with the exception of Griffith Jones, their captain, who throughout showed he was "real grit," seemed to lose heart, and small wonder, considering that Stringer and Stokes always had the pace of them, and aided by Jones, Roe, and Medlock, were apparently able to cross the line much as they liked. Team:—

Guy's.—H. Millett (back); L. B. Stringer, A. S. Roe, J. P. Jones, L. Stokes (three-quarters); J. G. Saner, A. H. Medlock (half-backs); H. R. Mullins, H. Archer, W. E. Williams, H. Hoby, A. V. Moberly, C. S. L. Roberts, H. S. Stranach, V. Glendining (forwards).

Remarks.—The forwards are improving with every game, also the halves. The pace of Stringer and Stokes was splendid, and the latter must be congratulated on his goal kicking. Both centres were good, Roe making a welcome reappearance. Millett promises to be a more than useful full back.

GUY'S v. CAMBRIDGE UNIVERSITY.

It was a great pity that the weather should have been at its very worst for this match at Honor Oak Park last Wednesday. It was the very worst day the writer remembers for a match actually to take place, and at the

end of the game the playing pitch was simply a morass. Both teams were practically at full strength, and the University team included ten Blues. Jordan, at one time captain of Dulwich College, was tried in the left centre position, and with Beecroft as outside man formed a formidable wing. The other three men who have yet to get their "Blue" were in the pack.

It is almost impossible to give any interesting details of the actual play, but undoubtedly Guy's held the advantage at first. Their forwards were well together, but as the game progressed it became increasingly difficult to keep one's feet, and this told against the heavy men who constitute the Guy's pack. Twice Stringer, in the early part of the game, got away, and by judicious kicking gained considerable advantage, but the wet ball made it difficult for the home quartette to settle down to their proper game. A "free" against Atkinson, the Cambridge full-back, was punted over the line, and half-time was taken with a blank score sheet.

The second half was contested on much the same lines, almost all forward work, and in this neither pack spared themselves. The play was vigorous and hard right up to the end. About half-way through this portion Guy's had two or three narrow escapes. Several scrums took place in the home "25," and Campbell and Ashcroft got their threes moving nicely, but twice in quick succession Jordan got away neatly and passed to Beecroft, whose over-anxiety caused him to be constantly in front of his centre, and consequently the infringement twice saved Guy's. By judicious kicking Guy's worked back, and Lacey, fielding the ball very smartly by the stand, looked dangerous, till tackled successfully by Atkinson. Neither side could claim any subsequent advantage, and the game ended in a pointless draw. Teams:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, J. P. Jones, *†H. Lee, L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (half-backs); H. R. Mullins, †H. Archer, W. E. Williams, A. H. Crook, H. Hoby, A. V. Moberly, W. S. Stranach, C. S. L. Roberts (forwards).

Cambridge University.—*M. Atkinson (back); A. E. Beecroft, G. P. Jordan, *F. Pyman, *J. S. Jones (three-quarters); *†A. H. Ashcroft, *G. C. Campbell (half-backs); *W. D. C. L. Purves, *R. Fraser, *G. Chapman, *J. V. Fiddian, *R. S. Kennedy, E. P. Reynolds, C. L. Marburg, A. E. Kitching (forwards).

* Old Blue. † International.

Remarks.—It was much too unsatisfactory a game, owing to weather conditions, to justify any criticism of the players, but, in much to commend, one can safely mention Lacey as playing a really excellent game.

Association Football.

GUY'S v. WELLINGBOROUGH MASTERS.

This match was played on October 23rd, at the Wellingborough Grammar School ground, under somewhat adverse conditions.

Guy's had a very weakened team out, and this, combined with a heavy storm of rain and wind, made good football almost impossible. The players of the home team seemed to be well acquainted with each other's play, especially in the forward line, so that our defence was repeatedly called upon. Good short passing left our opponents' centre forward with the ball at his feet a few yards from goal, but fortunately his excitement overcame his accuracy, and the ball went behind. Shortly afterwards, however, a similar opportunity presented itself, and this time the ball crawled into the goal far out of Rook's reach. Fast play followed with Guy's attacking spasmodically, but the home team, playing a much better game, again scored.

No further goals were added until well into the second half, when Bevis, after a good run on the wing, centred well, and Humm converted. Guy's were now continually attacking, and play became rather boistercus. Three fouls were given against the hospital, all of which were very questionable decisions, but nothing resulted from them except that the hospital played harder than ever. Shortly before time Camp scored with a good fast cross shot, and then Glover added a beautifully-judged goal, as the result of a scrum in the Wellingborough goal mouth. Thus the hospital won a hard fast game by 3 goals to 2. Team:—

Guy's.—H. C. Rook (goal); H. R. Bastard and H. B. Neely (backs); C. W. Greene, P. S. Humm, V. Golledge (half-backs); H. H. Glover, A. F. Camp, T. L. Jones, C. E. Rice, and S. Bevis (forwards).

Remarks.—Considering the strength of the team on paper, the result was very good, and was brought about by good hard work. No player slackened his pace or efforts. Rook in goal had no chance with those scored against him. Bastard and Neely were safe and energetic and seem to have accustomed themselves to each other's play. Greene and Golledge worked hard and fed their forwards well. The forward line was successful considering that, except for Jones and Glover, they were strange to each other's play. Both Camp's and Glover's goals were well deserved.

GUY'S 2nd XI. v. BECKENHAM "A."

This match was played in the pouring rain, with the ground in a very bad state. We were fortunate enough to win the toss and play with the driving rain behind us in the first half. Play, though fast, was of a scrambling nature all through, as it was impossible to control the slippery ball. Wain and Bergh scored for Guy's, whilst Beckenham scored once close on time. Result:—Guy's 2nd XI., 2 goals; Beckenham "A," 1 goal.

Birth.

ROWLANDS.—On October 19th, at 12, Queen Anne Street, Cavendish Square, W., to Mr. and Mrs. R. P. Rowlands, a son.

Marriage.

MILBANK-SMITH—FORESHEW. — On the 22nd October, 1909, at St. Margaret's, Streatham Hill, by the Rev. J. H. Smith, father of the bridegroom, assisted by the Rev. T. G. Gilling-Lax, Vicar, and the Rev. W. H. Booth, Harry James Milbank Milbank-Smith, M.R.C.S., L.R.C.P., of Worthing Lodge, Worthing, to Beatrice Ada, second daughter of Frederick Foreshew, Clapham Park, S.W.

Death.

HOLMAN.—On the 23rd October, at Gate House, East Hoathly, Sussex, Thomas Holman, M.R.C.S., L.S.A., in his 72nd year.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

November.

Sat. 13. 1st XV. v. London Welsh (Away).
1st XI. v. Old Carthusians (Home).
2nd XI. v. College Park "A" (Away).
Physical Society: Clinical Meeting (President, Mr. A. N. Leeming), 8 p.m.

Mon. 15. Clinical Lecture by Dr. Iredell (Actinotherapeutics), 1.15 p.m.

Wed. 17. 2nd XV. v. King's College Eng. (Home).

Thur. 18. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Darke).

Sat. 20. 1st XV. v. London Irish (Away).
2nd XV. v. Æsculapians (Home).
1st XI. v. Eversleigh (Home).

Mon. 22. Clinical Lecture by Mr. Turner (Otology), 1.15 p.m.
Physiological Society's Meeting, 4 p.m.
Final F.R.C.S. Examination begins.

Wed. 24. Physical Society: Paper by Mr. W. Catto, 8 p.m.

Thur. 25. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Lee and Brown).

Passim.

AT the meeting of the Students' Club held recently, the resolutions to which we referred in our last issue were both carried. Smoking is now permitted, therefore, in both the Reading Room and the Dining Hall—a triumph for the party of universal smoking. By these resolutions, one of the pleasantest sensations to be obtained in the Club—that of smoking and knowing it to be against the rules—has been abolished, and some of us will begin sighing for new rules to break.

THE gradual regeneration of the roadway in Maze Pond has, during the past few weeks, afforded pleasing material for contemplation of the honest British working man and his ways; but now that the Front Surgery is in Maze Pond it causes considerable difficulties in the bringing in of accidents, etc., when this street is "up." It does not seem very long ago since St. Thomas' Street was "up," but that, of course, was before the surgery was moved. The ways of the powers that be are sometimes inscrutable.

DR. A. C. JORDON read a paper on "X-ray Diagnosis for the Physician" before the Hunterian Society last Wednesday.

WE are asked to announce that the Annual Dinner of the Contemporaries' Club will be held

at the Trocadero Restaurant, on Wednesday, November 24th, at 7.15 for 7.30. Members intending to be present are requested to notify their intention, and to submit the names of any guests to either of the Hon. Secs. on or before Monday, November 22nd. The chair will be taken by John Atkins, Esq., F.R.C.S. Hon. Secs.: E. B. Dowsett, Esq., L.D.S., M.R.C.S., 1, Gloucester Street, Portman Square, W., and Lawrie McGavin, Esq., F.R.C.S., 6, Mansfield Street, Cavendish Square, W.

THE resolution recently passed at the Extraordinary General Meeting of the Guy's Hospital London University Club to abolish their entrance fee was apparently a popular one, as over thirty new members were immediately enrolled. The entrance fees have for some time been a cause for discontent. By its nature the Club appeals to a large number of men, and it was undesirable that the membership should be in any way confined to those who have left the hospital, a restriction which the entrance fee had threatened to set up.

A RECENT issue of *The Nation* contains some noble verses from the pen of an old Guy's man, Dr. Habberton Lulham, whose volumes of poems have been noticed from time to time in these pages. These verses relate "To one dying in the cause of Science," John Herbert Wells, M.B., B.S. Lond., who died last month "of infection contracted in preparing an antitoxic serum with which another life was saved." The poem recalls Dr. Johnson's dignified "Lines on the Death of Mr. Robert Levett, a Surgeon," and its tone of serene optimism is worthy of Johnson, too, ending as it does:—

"The flower that 'neath such tempest sprang,
The soul that upward fought
To life where deadliest battle rang,
Was never framed for nought."

Dr. Wells had been engaged in the investigation of glanders, during which he had the misfortune to contract the disease himself, and after eighteen months' suffering he died at the early age of thirty. An influential committee, including Mr. Balfour, Lord Dalhousie, Lord Justice Fletcher Moulton, Sir Almroth Wright, and others, has been formed to assist the widow and children of this real hero of science, who have been left almost entirely unprovided for.

IT was only to be expected that such radical alterations as were involved in the removal of the surgery to Maze Pond should give rise to a good deal of adverse criticism. This has been the case, and at present there are a good many points in which the new buildings seem to fall short of perfection, to put it delicately. No doubt, however, in time and with use it will be found that the new surgeries possess good points hitherto hidden, and the cavilling dresser or clerk may find that he has criticised too hastily. But there is one addition to the hospital which has been made during these alterations to which, we imagine, no criticism can be offered. We refer to the operating theatres which have been added to Bright, Stephen and Addison wards. Where it was formerly necessary, in case of an operation, to employ the inconvenient subterfuge of turning part of the ward into a theatre *pro tem.*, there is now a well-lighted and convenient theatre available.

SOME time ago the hope was expressed in these columns that the Wills Library might be able to acquire the remaining volumes of the Index Catalogue of the Library of the Surgeon-General's Office of the United States Army, which were necessary to complete the series already in possession of our library. We are pleased to hear that Vols. V. to X. of the second series have lately been presented by Dr. Pembrey, whose generous gift practically completes our series to date, as the library is already in possession of a complete set of the first series.

The Surgeon-General's Catalogue is magnificent as a work of bibliography alone, and it is unique as an index of medical and surgical literature. We hope the Library Committee will be able to acquire the remaining volumes by presentation or otherwise, and later volumes as they appear, so that men doing research at Guy's will not find it necessary to journey to Pall Mall or Lincoln's Inn Fields to verify their references.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane* :—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

NOTICES.

V. J. H., WESTCLIFF-ON-SEA.—This urine contains a large amount of blood with a quantity of albumen in proportion.

Its centrifugalised deposit consists chiefly of the red blood corpuscles, but in addition there are to be found small numbers of cells of an irregular type, not a few of which are more or less tailed, whilst others are rounded or of irregular shape. In addition some fair-sized calcium oxalate crystals are present. There is no trace of pus, and tube casts have not been detected.

The total sediment was collected, and the blood laked by saturation with ether, and although it was impossible to distinguish in this any fragments of tissue with the naked eye or by hand lense, a few minute continuous particles were distinguishable, composed of irregular cells, such as occurred in the centrifugalised deposit.

We can only suggest that the condition appears somewhat suspicious of a papillomatous growth, but further examination, as, for example, by the cystoscope, would be necessary for a diagnosis of the case.

T. R. A., CHADWELL HEATH.—This specimen contains a considerable number of tubercle bacilli.

PATHOLOGIST.

Pupils' Physical Society.

THIS meeting took place on October 27th, in the Club Smoke Room; Mr. Neville Cox was in the chair, and about fifty members were present. The discussion was opened by Mr. A. W. Ormond, who outlined the main principles of the subject in an address as follows:—

"MENDELISM."

MR. PRESIDENT AND GENTLEMEN,—"No two living things are exactly alike. Their inherent tendency to vary is stimulated by their surroundings, on which all life depends, and to changes in which they must adapt themselves or perish. Every living thing transmits its qualities, and therefore its variations, to its offspring; the more useful the variation the better is the plant or animal equipped in the struggle for life; for as all living things tend to multiply so rapidly that the earth would be too small in a very short time for a single species, a fierce and ceaseless struggle is waged, chiefly between the same species, for food and place; the result is that by far the larger number never reach maturity, or are killed and eaten. In the long result variations give rise to new species."

The above paragraph is an epitome of the theory of the origin of species; the part of it to which Mendel's work relates is embodied in the sentence, "Every living thing transmits its qualities, and therefore among them its variations, to its offspring." How do living things transmit their qualities? Are there any laws or rules by means of which we can anticipate the results of heredity, and amidst the seemingly inextricable tangle discover any underlying principles? Any of us who were asked our idea of the way in which an individual was affected by his ancestry would probably give an answer which embodied the idea that all the progenitors of that individual had contributed in some degree to that individuality, the amount of contribution being large in proportion as the progenitor is near, that is to say, large in the case of the immediate parents and smaller in the grandparents, and so forth. This embodies what has been called the law of diminishing individual contribution. It is a physiological law, and is certainly not a true one. On the other hand, we have statistical laws of heredity, of which Galton's and Pearson's are well known. Galton formulated his law as follows:—The two parents contribute between them on the average one half of the total heritage of the offspring; the four grandparents one quarter, the eight great-grandparents one eighth, and so on; thus the sum of the ancestral contribution is expressed by the series $(0{\cdot}5)+(0{\cdot}5)^2+(0{\cdot}5)^3$, etc., which, being equal to 1, accounts for the whole heritage. That is to say, that on the average a half of the filial generation are like the parental, a quarter like the grandparental, and so on, and is true of masses only, not of individuals.

Pearson's law, which is also known as the law of Ancestral Inheritance, takes its standpoint on the assertion that it is impossible to predict with certainty the character of the individual offspring, and the causes, etc., are not always followed by a single effect, but by

any one of many effects, and that we are therefore not dealing with causation, but with correlation, and he insists that we must collect statistics of the frequency with which the effects follow the causes, and obtain from these statistics the probable results.

Mendel's theory has been summarised in the following words: "The gametes of a heterozygote bear the pure parental allelomorphs completely separated from one another, and the numerical distribution of the separate allelomorphs in the gametes is such that all possible combinations of them are present in approximately equal numbers," but this quotation necessitates further explanation. Mendel's work may be divided into two parts; firstly, a series of experiments; secondly, a theory deduced from these experiments.

Experiments.—Mendel was a monk, and in the garden of the monastery at Brünn carried out experiments with plants, etc., especially the edible pea, during a period of many years. His work on the heredity of bees has been lost or destroyed, and it is on his work with Pisum Sativum alone that he claims the attention of the scientific world to-day.

The edible pea is a plant extremely well suited for purposes of experimentation; it is easily grown, is hermaphrodite and self-fertilising. In some plants the seeds are smooth, and in some wrinkled; in some yellow, and in others green. The position of the flowers varies, some being axial, and some terminal; and the length of the stem is in some cases short, and in others long. Mendel selected a large number of seeds obtained from plants which had exhibited these various qualities for several previous generations, and sowed them in the garden of the monastery at Brünn. Of the many different qualities investigated by Mendel, we will, for the sake of simplicity, select that of tallness and shortness. Now there is no difficulty in distinguishing these two qualities, because the short or dwarf variety average only a foot and a half, and the tall grow to seven or eight feet high. When these plants were ready he removed from certain of them all the anthers, and crossed them with pollen from others, using the pollen of tall to fertilize shorts, and the pollen of shorts to fertilize talls, in other words, he "crossed" the talls and shorts. Mendel obtained seed of these hybrids, sowed them, and obtained all tall plants as a result. These hybrids showing one characteristic, to the exclusion or suppression of the others, are said to display the dominant of two given unit characters, and the character suppressed or hidden is called the recessive character.

Now in our case, then, tallness is dominant to shortness, shortness being recessive to tallness. This generation of hybrids is sometimes designated the "F 1" generation.

Mendel allowed these plants to self-fertilize, and sowed the seeds again; in this, the "F 2" generation, he always obtained a mixture of talls and shorts in the proportion of three talls to one short; but keeping the seeds of the different plants quite separate, and sowing them again, he found that the dwarf seeds always produced dwarf plants when they were allowed to "self" themselves. On the other hand, he found that of the talls in the "F 2" generation one-third always produced talls, whereas the other two-thirds produced a mixture of talls and shorts, so that the "F 2" generation consists of, say in one hundred plants, twenty-five pure dominants, twenty-five pure recessives, and fifty hybrids, which, if allowed to "self" themselves, produces equal numbers of dominants and hybrids, and this proportion holds good for any number of generations, so that the formula may read, nD : 2nDR : nR.

These experiments of Mendel's have been repeated again and again, and have been verified by numerous observers.

Theory.—Mendel not only experimented, but also elaborated a theory to explain his experiments.

Generally speaking, all plants and animals start their existence as the result of the union of two "marrying" cells called gametes, and it must be obvious to any thinker that all the influence that we call hereditary must in some way be contained in either the male or female gamete. The union of these gametes or germ cells, male and female, results in the fertilized organism or zygote; the zygote, therefore, contains a double complement of hereditary qualities. These hereditary qualities or unit characters, as they are sometimes called, are, according to Mendel, allelomorphic—that is to say, alternative to one another in the constitution of the gamete, which can hold either of the allelomorphic pair, but not both. For instance, in the case we have already taken, the gamete can hold the quality of tallness or shortness, but not both. The zygote, therefore, may contain similar female gametes. The union of these gametes or germ cells, or dissimilar characters in respect of a given pair, both male or female may be tall, or both short, or, on the other hand, the male may be tall and the female short, or the male short and the female tall. If they are both tall or both short, they are termed Homo-zygotes, and if one is tall and the other short, Hetero-zygotes; consequently, we may have an organism, say a sweet pea, which holds both unit characters of tallness and shortness, but only displays the one (cf. F. 1 generation).

Now, return again to our germ cells. In the Hetero-zygote it is clear that if we are to explain the figures arrived at by Mendel's experiments, we must have a complete separation of the allelomorphic pairs into equal numbers of gametes of shortness and tallness, and this complete separation of the two allelomorphs of the germ cells into equal numbers constitutes the first and most important factor in Mendel's principles.

We are dealing, you see, with two unit characters, and therefore there are four possible combinations, viz., when the male and female are both tall; when the male and female are both short; when the male is tall and the female short; when the female is tall and the male short.

Now, by the law of dominance the *appearance* of these plants will be in the proportion of three long to one short, and that corresponds to Mendel's finding. In order to differentiate between the pure-bred talls and the hybrid talls, it is necessary to "self" them again, and

the pure breed will give tall plants only, whereas the hybrids will give numbers of shorts in the proportion of 3 : 1.

We must now go further and consider for a little the subject of dihybridism, that is to say, the case where two allelomorphic pairs are in consideration. Take tallness and shortness as one, and yellowness and greenness as the other. We have here four qualities, and therefore sixteen possible combinations. Of these sixteen, twelve will show the dominance of tallness and four the recessive character of shortness; that is, the proportion of 3 : 1. Of the twelve tall, nine would show the dominant yellow and three the recessive green, and of the four short three would be yellow and one would be green; hence the proportion would be nine tall yellow, three tall green, 3 short yellow, 1 short green, and the proportion of 9 : 3 : 3 : 1 holds good through numerous series of experiments in which two allelomorphic pairs are concerned.

But we find that this proportion does not invariably obtain, and that leads us to the very interesting subject of interaction of factors in the gametes.

If you cross a wild grey rabbit with an albino rabbit the F1 generation are all grey, but in the F2 generation the result is nine greys, three blacks, and four albinos. We are dealing here not with one allelomorphic pair, as greyness and white, but two, viz., pigmentation dominant to albinism and greyness dominant to blackness, and if you work out the accompanying diagram, by means of

B. B. Y. Y.	B. B. Y. r.	B. w. Y. Y.	B. w. Y. r.
B. B. r. Y.	B. B. r. r.	B. w. r. Y.	B. w. r. r.
w. B. Y. Y.	w. B. Y. r.	w. w. Y. Y.	w. w. Y. r.
w. B. r. Y.	w. B. r. r.	w. w. r. Y.	w. w. r. r.

B. = Blue dominant to w. = White.
Y. = Yellow dominant to r. = Red.

coloured counters you will see that the four squares in the right hand lower corner do not contain the B. factor at all. Now if B. stands for pigmentation, these four represent rabbits in which the pigmentation factor is absent, and therefore they must be albinos in spite of the fact that they all contain either the black or grey factors.

Again, if you cross two white sweet peas of a certain kind, the result in the F2 generation is nine reds and seven whites, which result is rather unexpected. Here again we have four factors, that is to say, it is a case of dihybridism, in which colour is produced only when the factor is present in both parents. Your diagram will again help you. If B. represents one factor and Y. represents the other, then those squares which contain both B. and Y. will represent the coloured, and the rest will be white, viz., in the proportion of 9 : 7.

If we summarise what has been said, the case stands somewhat as follows:—It is possible to obtain within the second generation an organism which is pure-bred with regard to a certain factor, and the old idea of breeders that length of pedigree indicated purity of breed does not hold.

Living organisms are made up of numerous unit characters (present in the gametes) which may be likened to the elements in chemistry, and which are alternative one to another, either one of a given pair being present, but not both. When fertilisation takes place by the union of two gametes a zygote is formed. In heterozygotes these unit characters or allelomorphs may appear in the hybrid as—

1. A simple blend.

2. Or one character may be more or less dominant over the other.

3. Or the appearance of the offspring may be unlike either parent.

4. Or we may get a reversion to a previous type.

But whatever may be the form of the hybrid, the allelomorphic pairs reappear in their entirety in those cells which go to form the gametes or "marrying" cells, and the parental characters separate completely from one another, half the gametes bearing one allelomorph, and half of them the other. "In cases where more than one pair of allelomorphs have taken part in the cross, the members of each pair are found, as a rule, to undergo this process of segregation quite independently of all the other pairs." There is a mass of very interesting material which has been worked out on Mendelian lines, but time only allows one to touch the fringe of it. I should, however, like to draw your attention to three points, chosen because of their special interest or utility.

Bread is the staff of life; the purity and strength of the wheat grain is a matter of importance to the whole world; in many countries millions of pounds sterling are lost annually owing to a particular disease, "Yellow Rust," which attacks wheat. Professor Biffen has found that certain varieties of wheat are immune to this disease. This is perhaps one of the most important instances to which Mendelian methods have yet been applied. Using a variety very susceptible to rust and another practically immune to its attacks, Biffen found that F1 was not perceptibly less attacked than the rusty type. F2 showed ordinary segregation, and the green resistant plants, standing among the yellow rusty ones, formed a very striking spectacle. The recessives bred true, and their progeny has remained rust-proof. It has not yet

been shown to what the resistance is due. Working with Profession Biffen, Miss Marryat found that the rust-hyphæ are checked after entering the stomata of the resisting plants. If, as may be suspected, the resistance is due to the presence of some anti-toxin, the dominance of "susceptibility" must be taken to indicate that the formation of the anti-toxin is prevented by the presence of a factor in the dominant forms, a conclusion which may lead to definite progress in the physiology of disease resistance.

Colour-blindness.—This is interesting, because it shows a sex-limited descent. Men are not infrequently colour-blind, women are rarely so; yet men do not transmit their colour-blindness to their sons, but through their daughters to their grandsons.

Colour-blind men do not have colour-blind sons. Men with normal sight cannot transmit colour-blindness, but women can.

Colour-blindness may be dominant in men and recessive in women, or it may be that the factor for colour-blindness is counteracted by the factor for femaleness. Whatever may be the explanation, it must be intimately bound up with the factor influencing sex. The problem of the heredity of sex has been affected very considerably by Mendel's work.

One of the most marked instances of segregation is that the existence of males and females is approximately equal in number. If we have one parent cross-bred in any particular character, having received one dose only of the factor, then on union with a homozygote bearing a double dose of the recessive factor, equality of types will result. It is possible that femaleness is dominant to maleness, and is absent in the male. Old and impotent females among the higher animals are known sometimes to assume some of the secondary characters of the male sex. This power suggests the presence of the male element as a previously latent factor in their constitution. On the other hand, the supposed female characters assumed by castrated males can probably be accounted for, as the result of arrested development, without any necessity for assuming the presence of a female factor. But all this is mainly theory—interesting theory and stimulating to the imagination—but it remains for future workers to prove if we are on the right track or not with regard to the question of sex.

AUTHORS QUOTED IN THE TEXT.

Principles of Mendelism.—Bateson.

On the difference between Physiological and Statistical Laws of Heredity.—Darbyshire.

Variation. Heredity and Evolution.—Lock.

Methods and Scope of Genetics.—Bateson.

Mendelism.—Punnett.

Evolution.—Clodd.

Mr. MONTAGUE HOPSON continued the discussion, and said:—We are much indebted to Mr. Ormond for the lucid manner in which he has placed before us some of the cardinal points of Mendelism. In continuing the discussion, let me say at once that I am here as a learner, and in no sense as a professed Mendelian. No one can dip into this subject, however lightly, without being fascinated by it, and impressed by the importance of certain ascertained facts and with the far-reaching possibilities which they present. I think we must accept it as proved that in some cases, many of which Mr. Ormond has cited, constant results follow when definitely differing characters are crossed in breeding, and that these results are to be explained by regarding the characters in question, tallness and dwarfness, &c., as dependent on the presence of definite elements or factors, which must be treated as units in the process of heredity. With a single character due to a single factor the problem is comparatively simple, but when we come to consider characters which, it is suggested, are due to the inter-action or combination of definite elements, the absence of one and the presence of another, the arguments become much more subtle, and there is greater difficulty in following them. I do not deny these conclusions, for in my case the difficulties may be due to the absence or inhibition of that special factor which goes to rendering mathematical problems simple and easy of solution, but it does appear to me to be quite as hypothetical as the theory of "determinants" enunciated by Weismann; nor must it be forgotten that this observer fully recognised the fact that whatever is, is pre-determined in the germ cells.

To my mind, one of the most interesting points which Mendelism has illuminated is the cause of "reversion," and the explanation of why it is that a particular germ-character is not swamped in the crossing. Most of us here are interested in the application of the theory to man and to disease. But the difficulties of so applying it are great. Man is a being comprised of such a complex of characters, some of which are masked by his environment, largely self-imposed and artificial. In his case it is almost impossible to determine a type, for his period of generation is very long, and close in-breeding is out of the question. Still, a certain amount of work has been done. Mr. Ormond, had he had time, might have told us of Hurst's investigations of the eye-colours which tend to prove that the brown eye is dominant over the blue. I have a patient who does not possess any upper lateral incisor teeth, his wife is normal, but of their six children five are without lateral incisors, and one is normal. These figures are not Mendelian, but there is no evidence that the fertility of the mother has been tested to the full. Some time ago a boy aged 14 came up to the Out-patients presenting a very remarkable dentition. He had but two teeth in his mandible, and a few cone-shaped teeth in his upper jaw. An X-ray examination determined that there were no more teeth to erupt. His condition was correlated with dwarfed nails. I found that he had two brothers with similarly aberrant dentitions. Of three cousins of this family, one was normal and the other two aberrant. Now, the fathers of these families were brothers and the mothers were sisters, so that the relationship was very close. I had an opportunity of seeing the mothers

and a sister of theirs, all of whom were normal. The fathers I have not seen, but I think we should in all probability succeed in tracing back the abnormality to the male line. The condition appears to be dominant, and this is frequently the case with abnormalities. The Mendelian explanation of sex-limited transmission, as appears in hæmophilia, is as interesting as it is subtle. Bateson says the character is dominant in males and recessive in females: "If the males contain the factor for the condition, they exhibit it; consequently the affected males can transmit, while the unaffected males cannot. In the females, on the contrary, something—almost certainly the presence of some other factor—prevents or inhibits the development of the condition, and then they may possess the factor without its making itself apparent. Such females may then transmit it to their offspring, but it will only be visible in the males except in the rare case of a union between a heterozygous female and an affected male."

It has been suggested that the Mendelian hypothesis supplants that of natural selection, but a moment's thought will show that such is not the case; for whatever the result of a combination of unit characters may be, it must still be subject to the operation of natural selection, which would favour that which was advantageous to the organism and tend to eliminate that which was disadvantageous. It happens that the chief exponents of Mendelism are also mutationists, who believe in a saltatory evolution. For myself, I cannot conceive how such would account for some of the wonderful adaptations which abound in Nature, and it certainly would be interesting to know what degree of variation is necessary for it to become established as a unit character capable of segregation.

That research on Mendelian lines must be productive of much good there can be no doubt, for it has revived and given an impetus to experimental work, which to some extent had fallen into abeyance.

Mr. ASSHETON suggested that the matter might be classified by distinguishing between the several types of variation. Heredity may be regarded as the normal course of development which each individual life cycle ought to follow due to past causes, and which it would follow were it not for the interference of influences of the moment which bring about deviations from the normal. These deviations we term variations. One life cycle is probably never an exact replica of the cycle preceding it; inheritance never a perfect inheritance.

These many disturbing influences produce in one life cycle effects which can be classified as (1) *Fluctuational* or evanescent variations which leave no permanent impress upon the life line; (2) *Mutational* or permanent variations [which, together with certain of the next class, make evolution possible]; and (3) *Amphimixial* or those due to the fact that in the vast majority of organisms two life lines of different ancestry enter for a while into a co-partnership (at the time of the fusion of the gametes), and unless the two ancestries have been identical, they are bound to affect one another either temporarily or permanently when they—so to speak—separate again at the time of the next gametogenesis.

Of the causes of mutational variation practically nothing is known. It is to the better understanding of the last type of variation (amphimixial) which Mendel's great discovery has contributed so enormously. This may be clearly seen in a diagram showing the effect of interbreeding types with two pairs of allelomorphic characters, where, out of nine different combinations possible, two are like the original parents and are capable of breeding true when mated with their like, and two others are equally capable of breeding true but are of a new composition, there having been an interchange of characters. The remaining first types lead to less simple results. Mendelism is not to be regarded as destruction of Darwinism, but as providing a better and more accurate method of study of the variations, especially those of the last kind, upon which the action of natural selection may tell in maintaining an organism in correspondence with its environment.

The following members joined in the general discussion:—Messrs. Sandison, Todd, O'Callaghan, Mutch, and Poulton. Messrs. Ormond and Assheton then replied to some of the criticisms which had been raised. Mr. Digby proposed, and Mr. Malleson seconded, a vote of thanks to the three speakers, and the meeting then adjourned for refreshments and the inspection of the specimens, books, etc., which were on view.

Fund for Mr. A. A. Clark.

We have received, and hereby acknowledge, the following subscriptions collected from the clerical staff and employés of the hospital (per J. P. P.):—

	£	s.	d.
Mr. H. Williams	0	10	0
C. H. W.	0	10	0
S. H. C.	0	5	0
H. F.	0	5	0
J. P. P.	0	5	0
B. B.	0	4	0
W. J. C.	0	2	6
R. W. R.	0	2	6
F. H. B.	0	2	6
P. M.	0	2	6
H. A. H.	0	2	6
A. Bell	0	2	6
T. M.	0	2	0
H. J. B.	0	2	0
W. C. H.	0	2	0
M. C.	0	2	0
V. E. A.	0	1	0
Anon.	0	1	0
G. E. T.	0	1	0
	3	5	0
Also Mr. R. P. Rowlands	1	1	0

Guy's Hospital London University Club.

An Extraordinary General Meeting was held on November 8th, in the Medical School Office Committee Room, Dr. Hale White in the chair. Two resolutions were passed. The first, proposed by Dr. Fawcett, "That the Entrance Fee be abolished"; the second, proposed by Mr. Layton, that Rule 8 be amended, to read: "The Annual General Meeting shall be held *some time in November*, the day to be fixed by the committee, and on the same evening the Annual Dinner shall take place." This amendment will only come into force after the next Annual Dinner in January, 1910.

At a subsequent meeting of the committee the following new members were elected: Messrs. C. A. Basker, G. B. Cockrem, T. P. Cole, A. Neville Cox, S. J. Darke, D. A. Davies, C. E. Dick, G. Dunderdale, E. Duvivier, H. Edmunds, T. Evans, R. C. V. Edsall, W. Fox, W. S. George, V. B. Glendining, A. A. Greenwood, G. F. Haycraft, W. Johnson, T. Lewis Jones, A. E. Lees, E. L. Martyn Lobb, L. Mandel, R. D. Passey, E. A. Penny, H. Perkins, Russel J. Reynolds, M. Scott, G. F. Stebbing, R. Stout, T. D. M. Stout, A. H. Todd, W. H. Trethowan, A. Zorab.

A few Facts not generally known.

That it is not necessary to get signed up for Peall's.

That Mr. Fagge did not ask "why" Dr. Salter lost the Bermondsey Election.

That the District Nurses do not carry beer in their white jugs.

That Mr. Targett is not the "curetter" of the Royal College of Surgeons' Museum.

That the New Front Surgery is to be called "The Garden of Sleep."

That Mr. Ormond is not Mr. Francis' House-Surgeon.

That the real object of the visit to Bordeaux was to play football.

That the "irresponsible juniors" were seriously thinking of blowing up the Residents on the 5th.

"QUI VIVE."

Pass List.

Final Conjoint Examination, Oct., 1909.

Medicine, Surgery, and Midwifery.

*D. A. Mitchell.

Medicine and Surgery.

*S. H. Browning, *D. C. Druitt, *W. S. Kidd.

Surgery and Midwifery.

*R. C. H. Francis.

Medicine only.

*E. Elliott, F. C. Endean, A. L. George, *C. H. Mills, H. G. Rice, F. D. Saner, J. G. Saner, H. I. Shahin, N. A. D. Sharp.

Surgery only.

W. H. Catto, *A. E. P. Cheesman, *E. A. Collins, *G. F. Haycraft, *W. L. Hibbert, *G. H. Peall, V. T. P. Webster, C. Witts, A. D. J. B. Williams.

Midwifery only.

F. S. Adams, *H. L. Attwater, J. G. Bleckschmidt, H. W. Doll, N. L. M. Reader, C. C. Tudge.

*Denotes completion of examination.

Appointments.

Civil.

Bowen, W. H., M.S. Lond., F.R.C.S. Eng., has been appointed Surgeon to the East London Hospital for Children.

Dupigny, J. Elford, M.R.C.S., L.R.C.P. Lond., L.D.S. Eng., has been appointed Honorary Dental Surgeon to the Hospital of St. John and St. Elizabeth, N.W.

Hinde, E. B., M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer at the Great Northern Central Hospital, Holloway Road, N.

Naval and Military.

Fleet Surgeon E. R. D. Fasken, R.N., has been appointed to the *Argonaut*.

Captain C. H. Reinhold, I.M.S., has been appointed a Specialist in Prevention of Disease and to the charge of the Laboratory, Kohat, N. W. Frontier, India.

Lieutenant Zorab, I.M.S., is permitted to resign the Service from September 26th, 1909.

Colonel R. H. Luce, F.R.C.S., V.D., Territorial Force, has been appointed Administrative Medical Officer, North Midland Division, *vice* Colonel Macmunn, M.D., V.D.

The Radical Cure of Hernia.

CLINICAL LECTURE BY MR. R. P. ROWLANDS.

GENTLEMEN,—The results of operation for the radical cure of hernia have changed so much in the last few years that it may not be out of place to consider briefly—

1. The cause of the improvement.
2. The important question of when to operate.
3. The choice of operation.

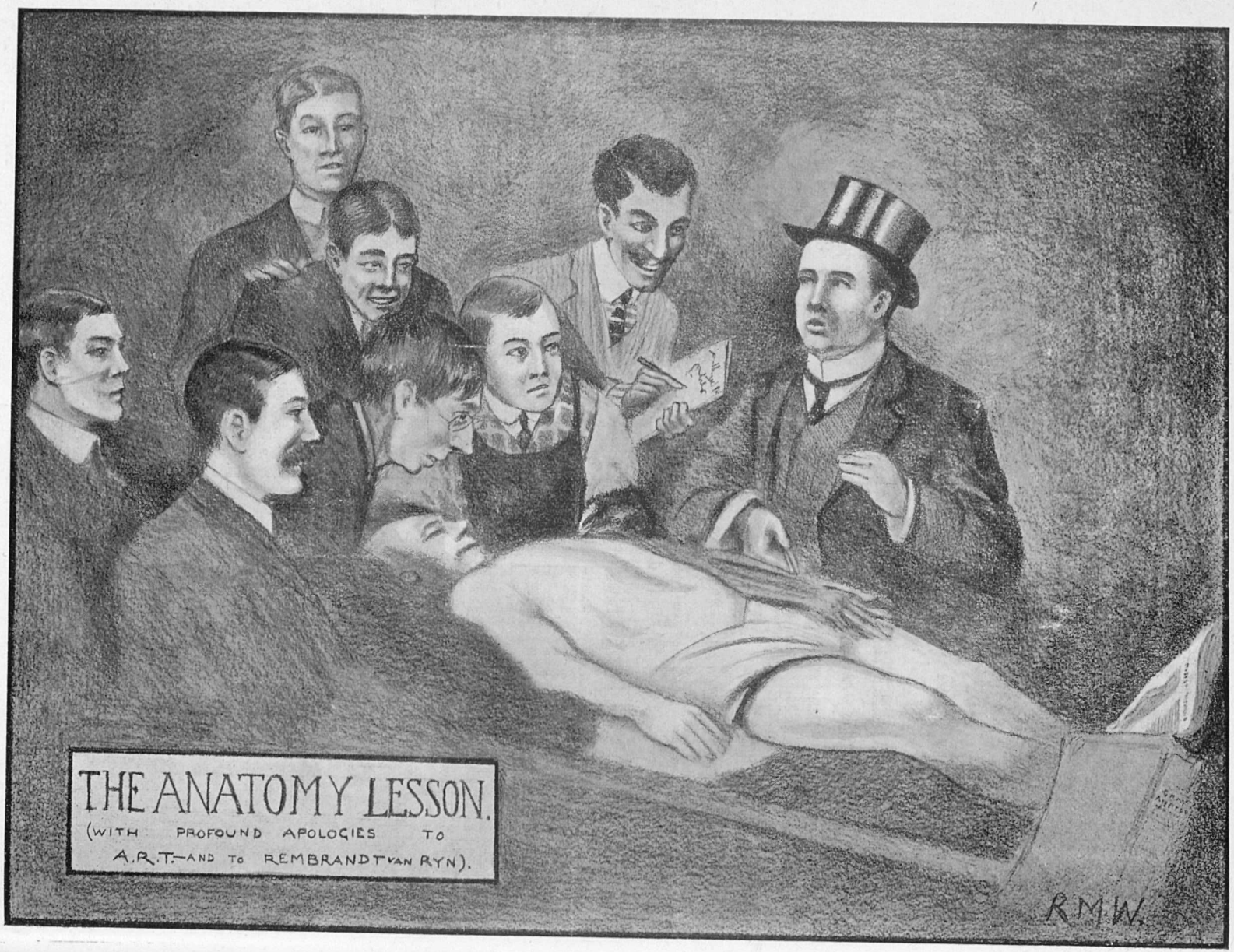
1. The almost universal adoption of gloves and a wise selection of catgut as the suture material, have done more than anything else to ensure good results. Much of the improvement is also due to the adoption of such radical operations as those of Bassini, Halsted and Mayo, in preference to the older and less efficient methods. It is well known that suppuration used to be the main cause of failure of operations for radical cure. With the precautions now taken this is an exceedingly rare event. Even stitch sinuses are almost unknown. Occasionally a sinus may develop after the use of salmon-gut as the buried suture, but personally I do not use either this or silk, believing with Sir William MacEwen that unabsorbable sutures are not suitable for the radical cure of hernia, they ultimately bite through the tissues which they are intended to hold together leaving them weaker even in the absence of suppuration, which they are more likely to induce than are absorbable sutures. When Kocher's operation was in vogue, stitch sinuses were fairly common at the upper and outer end of the wound, but now very few surgeons use this method.

2. *When to operate for hernia.*—All are agreed that, failing gentle taxis, an operation must be undertaken at the earliest possible moment for strangulated hernia. In this way only can the mortality of strangulation be materially reduced. Irreducible and irretainable hernia are such dangers to life that an operation is advisable at any age, provided that there are no serious contra-indications like severe bronchitis, chronic nephritis, diabetes, or phthisis. Even inability to take a general anæsthetic need not be a contra-indication, for efficient and safe anæsthesia can be obtained by the local injection of eucaine or novocaine, 4 per cent. solution, combined with sodium chloride and adrenalin. In old men an operation under these circumstances confers great benefit, enabling them to wear a truss, and allowing them to take proper exercise. The constant irritation and trouble of an irretainable hernia is only realised by those who suffer from it. It is nearly always wise to recommend operation for all healthy young adults, especially those doing heavy work or going away from civilisation. Many patients with small *inguinal* hernia prefer to try a truss. When treatment by means of a truss is either inefficient or irksome, the patient usually demands operation. The history of nipping or threatening strangulation is an important indication that no time must be lost. Direct hernia and other small retainable inguinal herniæ in men over middle age, associated with degenerated muscles and general bulging of the sides of the lower abdomen, are best treated by trusses. In young women, an operation is almost as necessary as in men on account of the risks and troubles associated with child-bearing. I believe that it is wise to operate in all male children over two years of age with inguinal hernia, because a truss is not likely to cure after this age, and in any case it is a great bother and expense, as well as a hindrance to the proper development of the child. There are different opinions about the propriety of operating in infants under two years of age, except for strangulated or irretainable hernia. I strongly believe that an operation is the best thing in any healthy male child over six months old, and this is especially true when a truss cannot be applied constantly, for one reason or another. The cost of new trusses is frequently a serious matter for the poor, and even the rich forget the importance of keeping *a well-fitted truss always applied*. Moreover, I think it is extremely doubtful if the so-called cure that results from a truss worn in infancy is really a cure. How frequently it is to find upon careful inquiry that a young adult with a hernia, which he says has only developed recently, had, in fact, a hernia in infancy! Even when a truss is successful in obliterating the lower part of the neck of the sac, the upper part remains as a funnel, which forms the starting-point of the hernia of young adults. Female infants generally do better with trusses. Old age in itself, apart from degenerative changes or cardiac disease, bronchitis, nephritis, or glycosuria, is not a serious contra-indication when a truss has failed. The size of a hernia is sometimes an important thing, for some have been allowed to become so large that it may be impossible to replace their contents in the abdomen. This is especially true of some umbilical and ventral herniæ. Infantile umbilical hernia is nearly always curable by a proper elastic truss, but in older children and adults it

is wise to perform Mayo's operation before the hernia has time to get large or to become strangulated.

3. *The choice of operation :—*

A. *For inguinal hernia.*—It is almost certain that all that is necessary in young infants is to remove the sac. The muscles are in such good condition that they serve to prevent recurrence if the sac be removed. In order to do this it is necessary to clear the neck of the sac and some of the abdominal peritoneum, so that the ligature can be applied well above the neck. When the ligature is divided the stump should retract suddenly out of sight. Most of the sacs of infants are too thin to allow of the inversion method of Kocher, and the peritoneum tears in the attempt. Kocher's lateral displacement may be used, however, but the simple method mentioned above is quite sufficient. In separating the sac a great deal of care is necessary to avoid injury to the thin and adherent vas deferens. In male children, and also in healthy young adults who do not do heavy work, Bassini's operation is suitable. For working men, especially those who have to lift heavy weights and those advancing in years, with degeneration and fibrosis of their muscles, and with widely-gaping inguinal canals, I always perform Halsted's operation, and I find it to be very efficient and safe. Occasionally a little effusion does occur into the tunica vaginalis, but even this does not take place if care be taken to support the scrotum during bandaging. There is a curious misunderstanding as to the exact nature of Halsted's operation, and a corresponding distrust of it. There still prevails an impression that Halsted displaces the vas deferens into the subcutaneous tissues, whereas, in the operation which he described thirteen years ago, and has performed ever since, he does not even touch the vas deferens, much less displace it from its natural bed. What he really does is to remove the sac and its neck, the fat, and most of the veins of the cord, taking care to leave a vein or two in the front of the vans deferens. He then overlaps, first the cremasters under the internal oblique and conjoined tendon, then the conjoined tendon under the lower part of the external oblique, and, lastly, the lower margin of the wound in the external oblique, under the upper margin. He maintains, and I think rightly, that no hernia is likely to travel along the narrow canal in which the vas deferens and its vessels lie. The bulk of the cord in the form of displaceable fat and collapsible veins is removed; and evidence goes to show that these are the main inducements to the recurrence of a hernia in an adult male, in the absence of suppuration. When the canal is very wide, and the conjoined tendon very poor, it is wise to adopt Bloodgood's modification—slitting the anterior wall of the rectus sheath in its lower part, and turning this out and using it as a conjoined tendon, or to reinforce the latter. There is no doubt that recurrence after this operation is exceedingly rare in the absence of suppuration, and so also is atrophy of the testis. This complication used to be very common after the original operation bearing the name of Halsted, and that is the chief reason why he gave it up and invented the method which is described above. I do not use nearly so many sutures as Halsted does when performing his operation. For instance, the same interrupted suture that draws the cremaster under the internal oblique, can also be made to secure the latter, down to Poupart's ligament. Again, I use a continuous suture for overlapping the two lips of the external oblique instead of interrupted ones, passing it after Noble's methods. I also think it better to bring the lower lip of the external oblique in front of the upper, because the strain of forced expiratory efforts is upon the upper part, which is then pressed into closer contact with the lower part. By economising catgut as far as is consistent with efficiency, I feel sure that the chances of suppuration are minimised. Such a thing is, of course, exceedingly rare with the use of gloves and properly sterilized catgut. I have not had one for years. In old men it is always wise to get consent for the removal of the testis, in order to be able to guarantee a radical cure. In the absence of this consent, however, I always perform Halsted's operation, with Bloodgood's modification. So far I have not seen any trouble following this, even in these old people. When the testis is retained in the canal, and is not capable of being easily brought down into its natural position without tension, I think it best to remove it because of its great tendency to retract, and to interfere with the radical cure of the associated hernia. It may be of interest to know that the removal of such a testis is not in itself a bar to the admission of the patient into the Army at the present time, according to some correspondence that I have had with Lieut.-Col. Josling, R.A.M.C. In female children and most women, all that is necessary is to remove the sac and its neck and then to sew the internal oblique and conjoined tendon to Poupart's ligament in front of the small round ligament (Fergusson's


THE ANATOMY LESSON.
(WITH PROFOUND APOLOGIES TO
A.R.T.—AND TO REMBRANDT van RYN).
R.M.W.

operation). In some large herniæ in elderly women it is necessary to make use of a flap of the rectus sheath. Although I have operated on a great many cases of hernia, I have not yet met with a case which called for the use of a wire filigree. Kocher's operation is not a good one except as regards his method of dealing with the sac, and even this is not always capable of application, either with thin sacs or very thick ones. His method of dealing with the canal without slitting the external oblique is very unsatisfactory.

B. *Femoral hernia.* — For most women I prefer Lotheissen's operation (Gordon), which I have performed for several years with complete satisfaction In this operation, after the removal of the sac, the lower and inner part of the external oblique is slit over the inguinal canal, and the neck of the sac is tied high up. The lower part of the conjoined tendon of the internal oblique is sewn down to Cooper's ligament which forms the posterior border of the femoral ring. This operation is more difficult in males and in very stout women. I have, however, operated successfully by this method in a woman weighing eighteen stone, and now, three years afterwards, she has not a sign of recurrence, although she has not worn a truss. In such cases, and after dealing with a strangulaled hernia, the operations of Lockwood, Bassini, and De Garmo, are more simple, and are, on the whole, efficient enough for practical purposes. For umbilical hernia there is no operation that can compare with that described by Mayo, in which the opening in the abdominal wall is prolonged laterally to both sides, and all the tissues, except the skin and subcutaneous fat, are then overlapped "en masse," by means of mattress sutures of stout catgut. For mechanical reasons it is best to bring the lower lip behind the upper. When the mattress sutures have been tied, the lower edge of the upper lip must be tacked down to the front of the lower. This method is also applicable for nearly all cases of ventral hernia, but some of these require the insertion of a wire filigree.

How far is it wise or necessary for a patient to wear a truss after undergoing a "radical cure" of hernia? The greatest danger of recurrence is during the first year, especially between the second and the ninth month. It is generally wise for elderly men doing heavy lifting work or other forcible expiratory acts to wear a *flat-bladed light truss* for a year after an operation for inguinal hernia. For a number of reasons it is best for these men to be fitted with a *double* truss in preference to a single one.

If suppuration has occurred, as may occasionally follow the radical cure nearly always done immediately after relieving a strangulation, the truss must be worn longer. In femoral hernia the danger of recurrence is during a later period, so that a truss, if worn at all, should be continued for about three years. It is only necessary to use one after strangulated hernia, or in elderly women with very large femoral rings.

For the obese subjects of large umbilical hernia it is nearly always wise to order either an abdominal belt or a suitable truss for eighteen months after operation, on account of the separation of the recti and the degeneration of the muscles. In the great majority of radical cures no truss is either necessary or beneficial.

Guy's Physiological Society.

At a meeting of this Society on Monday, November 8th, an interesting paper was read by Mr. A. Wills, entitled "Degeneration." Dr. Pembrey took the chair.

Having defined degeneracy as a "morbid deviation" from an original type, the author classified degeneration into two types—those attributable to heredity and those to environment. Arguing from external signs of degeneracy, fanatics might say that 90 per cent. of the race are degenerate, which is quite wrong Some factors, *e.g.*, the shape of the skull and formation of the face are valuable indicators, but these, like all others, are not infallible; vice, crime, and madness, are only distinguishable from each other by social prejudices, and can be classed together under "cerebral degeneracy."

Among the causes and effects of degeneration, the author mentioned alcohol and drug habits, and showed the danger of intermarriage or consanguineous marriage where a taint is present.

In dealing with acquired degeneracy, the fundamental cause is poverty, with its accompanying train of malnutrition, overcrowding, and nervous fatigue. Alcohol, tobacco, and tea are the three great poisons which tend to produce degenerates, and the great strain of modern life is another important factor. In conclusion, the author made a plea for better legislation dealing with the health of the lower classes, that being the only method by which the evil can be prevented.

In the discussion, which was mainly on political and social subjects, the chairman and thirteen members took part. The meeting closed with a vote of thanks to Dr. Pembrey for taking the chair.

G. E. GENGE-ANDREWS,
(Hon. Sec.).

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Systematic Notes of Cases in General Practice.

DEAR SIR,—It has occurred to me that the following suggestions, if carried out, might be the means of furthering the investigations, and more especially the treatment, of many diseases. There is no doubt that the G.P. in his practice has very many interesting cases of real importance which are never published, possibly through lack of time, mental fatigue at the end of the day's work, or perhaps the feeling that he may be exaggerating to himself the interest of a case, and that, like many others in writing, he may be only adding to the "rubbish heap of literature," But no one will deny that the G.P.'s experience is valuable, that his clinical instinct is generally highly developed, that his knowledge of his patient is often greater than ever can be obtained in hospital practice, that his judgment is less likely to be biassed by the influence of others, and though less learned he is still an individual.

My suggestion is to make use of this fund of information stored among the G.P.'s. To this end I would suggest that your valuable journal, which is read by a large number of G.P.'s all over the country and abroad, should contain a leaflet, headed with the name of the subject to be investigated, with headings as in the accompanying sheet, though each one need not necessarily be filled in. I should like to bring forward the subject of Cancer, in the investigation of which, in spite of Royal Commissions, etc., we appear to make so little progress.

I enclose the reports of two cases which I regard as of interest.—I am, yours sincerely,

P. W. L. CAMPS.

The White House,
Teddington,
October 26th, 1909.

[SCHEME.]

CANCER.

1. Climate and locality: their general effects on the normal inhabitant, *e.g.*, high or low. Bracing or depressing .....
2. (*a*) Age and sex of the patient .....
   (*b*) Character and temperament.....
   (*c*) General health .....
3. (*a*) Previous diseases .....
   (*b*) Presence of other diseases .....
4. Loss or absence of any organ or gland (by disease or operation), *e.g.*, testicle, ovary, thyroid .....
5. (*a*) Chief symptoms.....
   (*b*) Causes suggested (by patient) .....
   (*c*) Site .....
   (*d*) Type .....
   (*e*) Rate of growth .....
   (*f*) Effects on other organs .....
6. Any special investigations made .....
7. *Treatment*—
   (*a*) General.....
   (*b*) Drugs.....
   (*c*) Operation.....
   (*d*) Other methods .....
8. *Results*.....
9. *Other remarks* .....

[EXAMPLES.]

CANCER. CASE 1.

1. Damp valley, in which children and old people usually thrive, but the middle-aged usually feel "slack." Patient resident here several years, but previously some time in India and elsewhere.
2. (*a*) 50. Female. Married. ? Five children.
   (*b*) Fond of excitement, resentful of state (comparative poverty).
   (*c*) Fair.
3. (*a*) Influenza.
   (*b*) Anæmia.
4.
5. (*a*) Tumour and pain.
   (*b*) A knock.
   (*c*) Left breast.
   (*d*) Scirrhus.
   (*e*) About three months to size of large walnut.
   (*f*) Loss of weight.
6. Microscopic sections showed ordinary carcinoma mammæ, of original and of gland recurrences. The last sections made from the four glands removed from supraclavicular region showed two to be carcinomatous, the third to be fibroid and carcinoma, and the fourth to be pure gland.
7. (*a*) After the axillary recurrence, patient was caused to eat increasing quantities of pure cane sugar (brown Demerara) up to four ounces a meal, and at
   (*b*) the same time ʒi. doses of liq. trypsini three times a day.
   (*c*) *Operations*—
      (1) Excision of breast, with clearance of axilla.
      (2) Excision of a recurrence (pea size) at outside margin of breast. Three months (about).
      (3) Excision of a recurrence in axillary glands. Six months (about).
      (4) Up to this time patient was continually getting thinner and more cachectic-looking, but now began to improve, and continuously improved from this time forward, going through the last operation well and without ill-effect after excision of glands above clavicle.
8. *Result.*—Since the above (two and a half years ago) patient has been well, the treatment having been continued for about four months after operation.

CANCER. CASE 2.

1. Damp valley. Patient resident many years.
2. (*a*) 45. Female. Unmarried.
   (*b*) Irritable, neuralgic (Herrmann).
   (*c*) Broken leg. Attacks of pain in head.
3. (*a*) Paroxysms of head pains associated with ptosis of left eyelid and external squint.
4.
5. (*a*) Pain in abdomen, and vomiting.
   (*b*) Tumour in the upper part of abdomen.
   (*c*) Transverse colon.
   (*d*) No sections taken, but presented appearance of typical carcinoma.
   (*e*) Discovered through pain.
6.
7. (*b*) For head pain, treatment:—iodides, mercurial inunction, arsenic, etc., etc.
   (*c*) Exploration by London surgeon. Regarded inoperable.
8. *Result.*—Gradual disappearance of tumour and recovery of patient to her normal health, with later recurrence of head pains.

A Cinematograph Show for the Hospital.

DEAR SIR,—I have recently had an offer from Mr. McIntosh and the proprietors of the cinematograph films of various famous events to show the films *free* for the benefit of Guy's Hospital. As these films include the Shackleton pictures, which are of interest to Guy's men, also the Burns-Johnson fight, and many other interesting events, it seems a pity to let the offer go by. I am, personally, unable to take up and run a show for the benefit of my Alma Mater, as I have every minute of the day filled up. But if a man at Guy's who has a little time to spare to run the show would come forward, I shall be very grateful, as it seems a pity that if money is to be got for Guy's we should let the opportunity pass by.

If any of the residents or any student at Guy's could come forward to run the show I shall be very pleased to introduce him to the proprietors of the films.—Yours faithfully,

E. P. MINETT.
(Late Assist. Bacteriologist.)
London School of Tropical Medicine.
November 2nd, 1909.

Aeroplanes and the Rainfall.

DEAR SIR,—Have our meteorologists ever expressed the idea of any relationship between the descent of the clouds and the ascent of electrified aeroplanes? The clouds are not accustomed to the presence and bullying of such gigantic many-cornered pseudo-aves. Are they not resenting this intrusion by trying to turn them out of their sacred domains, just as you or I would treat trespassers? Of course, they are doing it in a clumsy way by flooding us all, but surely their motives are manifest; and they have not had to trouble such odd-shaped and erratic visitors before.

I remember well, when on a walking tour with a fellow student in "Lakeland," how the clouds would insist on kissing the mountains and drenching us unmercifully, and how, at last, since they would not heed our protests, we fled across to the Isle of Man.

Now if we present pinnacles or many-angled figures, plus stores of electricity, to our friends the clouds, we cannot but expect that they will lose their heads and embrace us with their uncontrolled tears of delight or vexation.

Further, the enormous amount of electricity there is being discharged into the air at many different heights must make the clouds unstable, and affect their equilibrium. We are all familiar with the electrified drops of a common thunderstorm, and we must surely be adding enormously to the same state of affairs by our aërial electrical discharges.

The high electric lights suspended in our streets; the higher houses with electric lighting up to the top floors; the overhead wires of the electric tramcars; the lofty Marconi stacks, and the ships at sea, all with their high-flying wireless telegraphy catchers, along with the huge waste of electricity in the air in the execution of wireless telegraphy, all these are enough to keep the clouds in a state of electrical storms and flood.

If it is true that our earth is gradually cooling from within, and we have, in addition, these shower-baths chilling her from without, we may be beginning to cool down more rapidly than is desirable.

My philosophy is that we are not meant to exist under the water, or in the clouds and higher air. Neither is our element; hence, submarines and aeroplanes are unsafe, and can only be of temporary and occasional utility.

However, should aeroplanes come to be constantly used, will their use be of benefit to the human race, I ask? Let us be more thoughtful and less mimetic, as individuals if we cannot as nations.—Yours anxiously,

A. W. G.

[Let not "A. W. G." be too anxious. Even if we are beginning to cool down more rapidly than is desirable, still that is better than if the place were getting too warm for us, according to our deserts. And then, again, if we were not meant to exist under water or in the clouds, neither, presumably, were we intended to travel along the ground at sixty miles an hour; yet we do it every day with more or less impunity, and not infrequently grumble if the speed drops to fifty.—Ed.]

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; The Stethoscope; The Polyclinic; St. George's Hospital Gazette; St. Bartholomew's Hospital Journal; The Prescriber; Middlesex Hospital Journal; Manchester University Magazine; South African Medical Record; London Hospital Gazette; The Nursing Times.

Guy's Hospital Debating Society.

THE second debate of the Session was held in the College Smoking Room on Saturday, November 6th. Dr. Fawcett was in the chair.

Mr. T. B. LAYTON moved:—"That in the opinion of this House some form of Compulsory Military Service is essential for the welfare of this Country." He pointed out that the Society could not have fixed upon a more important subject for discussion, and prefaced his speech with a short sketch of our present methods of defence. The Navy constituted the first line, while on land we had a small regular Army, and an auxiliary force for home use. People differed as to the relative proportions which these three means of defence should assume, but the question we had to consider was with regard to the land force. Was our auxiliary Army sufficient, or should it be extended so as to include every healthy man in the country? The question, he said, should be looked upon from two points of view, the national and the individual; in his opinion, what was good for the nation was also good for the individual. Every Englishman, he declared, ought to be at least ready to fight. He then proceeded to show, by references to different periods of English military history, that the idea of compulsory service dated from very early times. What we next had to ask ourselves was whether it was necessary for a large auxiliary force to exist at the present day. The Navy had been showing a steady proportionate decrease for many years, and recently that decrease had been very rapid. Under such circumstances could anyone deny that an increase in our military defence was essential? Our military force must necessarily be extensive, for by numbers alone could annihilation of an invading host be brought about, but also the men must be thoroughly trained and prepared for any emergencies. It was imperative that these preparations should be made before a war was declared. In his opinion, war might be declared at any moment.

Mr. M. SCOTT, in opposing the motion, declared that any system of compulsory military service was, of necessity, bad; firstly, from the economic point of view; secondly, from the point of view of its efficiency, and, thirdly, because of its ill-effects on national character. The field of taxation was, he pointed out, already almost covered. Compulsory military service would not only divert money from the Naval exchequer, but would also divert public attention and support from what so obviously was our first and strongest line of defence. We should commit ourselves to the same mistakes as Germany. Then, with regard to the question of the effects on national character, he emphasized the fact that however much the faculty of obedience might be increased by military service, it was pretty certain that initiative and intellect would be simultaneously diminished, and men would be liable to become nothing more than mere machines. A training of this sort was bound to exert harmful influences on the mental and moral character of the individual.

Mr. T. D. M. STOUT, seconder of the proposition, thought that the present Territorial Army would be of very little use in the case of an invasion, and that for national security a wider military organization was imperative. He urged the great benefits that would be derived from compulsory service as far as the physical condition of the nation was concerned, and, in outlining a scheme of military training, suggested that boys should learn all the elementary details of the work before leaving school, and that the young men of the country should serve six months in the year for a certain period of their lives. The expense, he maintained, would not be great, and the regular Army might be reduced and drawn upon for instructors. Already we spent almost as much on our army as Germany or France. The system would help to cure unemployables, and, finally, personal liberty ought not to be considered before national welfare.

Mr. T. P. COLE seconded the opposition. The motion, he said, suggested that the present method was insufficient. He, however, strongly upheld the Territorial idea, and, in pointing out the differences which existed between it and the old volunteer system, expressed his belief that it would efficiently prove its worth in the case of an invasion. An invasion might be the result of either the defeat or the surprise of our Navy. If the Navy were defeated it would only be a question of starving out the country, and the size of the home Army could make no possible difference.

Mr. J. A. RYLE, in upholding the International Peace movement, opposed the motion. Universal peace was desired on all hands, but must remain an impossibility so long as educated people persisted in wasting time and money in their endeavours to stir up military enthusiasm in an otherwise highly-civilized nation. War was a relic of barbarism. Settlement of disputes by arbitration was becoming more common. The theory that "if you want peace you must be prepared for war," was illogical, and not borne out by history. Forced military service was always demoralizing to national character. In Germany a wave of Socialism had arisen as the result of this, and other forms of unnatural oppression. The true patriot was the man who lived and worked for the betterment of his country and the general advancement of civilization.

Mr. C. GATLEY said he failed to see how discipline would have a bad effect on character. The Territorial Army was altogether too dependent, and would be incompetent to withstand an invasion. The Transport Department was especially inefficient. He considered that if people would not join a military body themselves, they ought to be forced to do so.

Mr. PASSEY thought the colonies should play a greater part in defence of the Empire, and ought not to rely on the Mother Country. He pointed out that if 100,000 men invaded England, they would soon be starved out, as the Navy would be able to prevent ingress of supplies. If, as someone had said, expense was no object when

national defence was concerned, why not spend all the money on our Navy?

Mr. REEVE expatiated on the evils resulting from large attendances at football matches, and considered that compulsory service would be excellent in as far as it would provide healthy employment for so large a proportion of the male population.

Mr. STEPHENS said efficiency in all cases depended on environment. England was an island, and her environment was the sea. Her efficiency, therefore, was dependent on her Navy, so she ought not to neglect her Navy. If the Navy was efficient, a home Army was unnecessary, and if the Navy was inefficient an Army was useless. The character of the British people had, to a great extent, been built up by national sports and games, and in his opinion these were far more likely to improve the physical condition of the race than any system of compulsory service.

Mr. O'CALLAGHAN pointed out that it was not proposed that we should adopt the Continental system, and supported the motion on historical grounds.

Mr. BARROW-CLOUGH said that if the foreign soldier underwent a training lasting three years, it surely was not possible for the English soldier to be prepared to meet him after a course of only six months. Inasmuch as it had been shown that late marriages resulted in a decline of the birth-rate, were we justified in postponing for three years the marriages of the majority of the men of the country?

Mr. H. WEBB laid bare some fallacies in certain arguments which Mr. O'Callaghan had brought forward with regard to military service in the Middle Ages.

Mr. R. G. ORAM considered that the strongest arguments for the opposition so far had been brought forward by the honorary secretary, but he could not agree with him as to the possibility of International Peace. He thought there would always be certain disputes which could not be settled by arbitration. The Empire would soon cease to exist if we were to take the initiative in disarmament. He then proceeded to give an excellent account of the existing compulsory system in Switzerland. No one was qualified to give an opinion on the probability of an invasion, but nevertheless we ought to be prepared. He considered the volunteer system quite inefficient, and maintained that prolonged peace always resulted in slackness among all classes of the community.

Mr. MINNS declared that conscription in other countries had caused excessive emigration to English shores. He thought it rather curious that wars should be denounced as barbarous which had resulted in an extension of British territory.

Mr. NEFT supported the secretary's point of view. He had, he said, had experience of three conscriptionist countries, and conscription was not really a question of ballot, as the hon. proposer had declared. A six months' training could not put us on a footing with foreign soldiery. Men would come back in hundreds after their service time was up, and would find great difficulty in obtaining work. He thought the rich men of the country were the least patriotic. The Algeçiras dispute was a good instance of a war prevented by the action of the peace parties of the respective countries. He hoped the House would vote for peace, not war.

Mr. M. SCOTT, in reply, urged that the Navy must be increased. The largest Army would be useless if the Navy was weak. He pointed out that the seconder of the proposition had not computed the loss of wealth by non-employment in conscription countries. Switzerland was not comparable, as it was not surrounded by sea.

Mr. T. B. LAYTON complained of the secretary's idealism, and said he had not taken into account the struggle for existence. Peace would certainly be better than present conditions, but would not, in his opinion, be ideal. We should be able to defeat a German host without a three years' training. There were, too, many vices arising from continual peace, and many moral characteristics would be acquired in war.

The motion was then put to the vote, and was carried by 20 to 9.

The meeting concluded with a vote of thanks to Dr. Fawcett for occupying the chair.

Change of Address.

R. B. Dawson, M.R.C.S., L.R.C.P. Lond., from the Sick Asylum, Bromley-by-Bow, E., to Maiden Newton, Dorset.

J. Elford Dupigny, M.R.C.S., L.R.C.P. Lond., L.D.S. Eng., 54, Wimpole Street, W. (Telephone 2722 Gerrard), and 7, Streatham Hill, S.W. (Telephone 144 Streatham).

Dr. C. J. Fuller, from 33, Nightingale Place, Woolwich, to Gloucester Lodge, 66, Plumstead Common Road, Woolwich.

E. B. Hinde, M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., from Queen Charlotte's Hospital, Marylebone Road, N.W., to Great Northern Central Hospital, Holloway Road, N.

H. Knights Rayson, M.D., L.R.C.P. Lond., M.R.C.S., from Steytlerville, Cape Colony, to "Knightsmead," Bayville, Cape Colony.

Captain Hugh Watts, I.M.S., from Plague Duty, Jullundur, Punjab, to Plague Duty, Hoshiarpur, Punjab.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Papers by Guy's Men.

Robley H. J. Browne, Fleet Surgeon, R.N.: A Case of Tertiary Syphilis terminating in Sudden Death from Abductor Paralysis of the Vocal Cords.

A. H. Miller, M.A., M.B., B.C. Cantab., M.R.C.P. Lond.: A Case of Late Traumatic Subdural Hæmorrhage; Traumatic Late Apoplexy.

Notices.

Revision Classes in Medicine.

It has been found necessary to alter the time and date of the Viva Voce Examination for the Revision Classes in Medicine from Wednesday, November 17th, at 3 p.m., to Friday, November 18th, at 12 noon.

(Signed) HERBERT FRENCH.

The University of London Orchestra meets on Mondays at 8 p.m., at University College, Gower Street, W.C., under Mr. R. H. Walthew (Guildhall School of Music). Recruits of all kinds welcome.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Graphic Methods in Heart Disease. By John Hay, M.D., M.R.C.P., Assistant Physician Liverpool Royal Infirmary. Introduction by James MacKenzie, M.D., M.R.C.P. (Oxford Medical Publications.) 7s. 6d. net

This book is an introduction to the larger work upon Heart Disease written by James MacKenzie. To anyone starting work with the "MacKenzie Polygraph" it will prove invaluable, and we are quite certain that the reader will be so interested that he will soon turn to the larger volume. Dr. MacKenzie's methods and nomenclature are adopted throughout, and the descriptions given are accurate, brief and lucid.

E. Merck's Annual Report. Recent Advances in Pharmacology and Therapeutics. Volume xxii. (E. Merck, Chemical Works, Darmstadt.)

We welcome the annual appearance of this useful summary of the year's advances and novelties in therapeutics: we make the distinction advisedly, for probably a very small proportion only of the new drugs in any given year sufficiently justify the claims put forward for them to earn the title of "therapeutic acquisitions." In case any of our readers have not yet made the acquaintance of Merck's Annual Report, we may mention that a limited number of copies of the book, comprising 348 pages of literary matter, will be sent free to medical men on application to the London Office, 16, Jewry Street, E.C. The book is also obtainable through booksellers at 1s. 6d. per copy.

The present issue opens with a very interesting account, extending to over 100 pages, of organotherapy and organotherapeutic preparations, with full references to the literature. It should be clearly understood that the book is not primarily an advertisement, and that no attempt is made to urge extravagant claims in favour of any given drug.

Papers, etc., Received.

Some Points on Sacro-Iliac Disease. (Reprinted from the *British Medical Journal*.) By F. B. Judge-Baldwin, M.R.C.S.

In the author's opinion more cases of sacro-iliac disease are due to conditions other than spinal caries than has been supposed by some surgeons; and this paper contains an account of such a case which was successfully treated by operation.

Trade Notes.

The Barker Vibrators.

At the London office and showroom of the Barker Vibrators, 99, Regent Street, W., we recently had an opportunity of seeing the working of these machines, which are designed to take the place of hand-massage in cases of insomnia, constipation, and various neuralgias and circulatory disturbances.

The machines made by this firm are of two types. One, known as the Pedestal Vibrator, gives a peculiar combined vibrating and kneading movement, communicated by a long flexible shaft from the motor, which stands on the pedestal, to a flat disc. The whole instrument is arranged so that it can readily be worked, and cannot easily be injured by those having no electrical knowledge. A special feature is that the strength of application is regulated by a series of pulleys, and not by a rheostat, as in most of these machines. The vibration, which is very steady and comparatively silent, is not communicated to the handle held by the operator.

The other type, the "Universal" Portable Vibrator, is so called because it can be used with any kind of current, direct or alternating (a matter of considerable importance in London), and because the whole instrument can be packed into a case no larger than the average hand-camera.

Various forms of applicators are supplied for use in different parts of the body, and for special purposes.

Messrs. Brooks & Co., the well-known firm in the Borough High Street, have lately opened a West-end Showroom at 12, Baker Street, for the convenience of nurses. The new showroom is very readily accessible from all parts of London by tube, or bus. It will be open for the inspection of nurses' uniforms and outfits, suitable for use in all parts of the world. In addition, there are facilities for letter writing and the consultation of papers and directories. Messrs. Brooks' latest catalogue has been sent to us, and should be seen by all nurses who cannot pay a personal visit to one of their establishments.

A Patient in Bright to his Children at Home.

Brite Word. Gy's Orspittle.
S.E.

My Dear Nippers—

You will want to know wot yer faver 'as bin doin' wiv 'isself since 'e stawted on 'is 'ollerday, and by the ritin' on the top of this piper yer see 'e ain't moved fur, 'cos 'e struck a good pitch fust time.

The fust two dyes was wot we calls a bit orf—new and unexpected like.

It fairly 'nocks you all of a 'eap to 'ave to git back to yer 'otel at 7.30 p.m. in the evening if yer wants any supper—so I took the orlternative plan and the sea breeses at the sime time by walkin' over London Bridge.

Wot the bloomin' poick says abart it is quite trew so far as people goes—they're as thick as flies in a honey pot, only more so.

Well I pushed on to Leddenall Markit and into Fenchurch Street as my missus sed I 'ad to git a noo tile. The bally shops was just a shuttin' up, so I 'ad to go and console myself wiv' a stike and chips, and some of that German swipes they calls Larger. It's so bloomin' thin they gives you more of it. The ony thing in its fiver is that it 'elps ter quelch yer thirst, but I didn't like the fliver. 'Twasn't up to standard, so I ordered a repeat of a different kind. English is good enuff fur me, thinks I. "Oh, we 'aven't got no lisens," ses the young lidy wot brings yer tucker to yer. "That's only a teetotal drink" says she. "Then that accounts for its fliver" I says. "Any'ow, wot do you call it?" I ses. "Kops ale," ses she. Well it fairly kopped me, so I toddled orf to my pitch, and give myself up like a lam' to the slorter.

In coarse everyone 'as a doss to 'isself, and a sort of room too, what they calls a cubikle, wich you wo'dent expect 'cos its only a three sided thing wiv a winder at the back, and curtins ware the other side ort ter be. The flore is mide up of ods and ends of stones green and wite chucked in any'ow quite permiscuus-like.

Before you gets ter bed you 'as a barf, and then you finks yer 'ollerday's really a-goin' ter begin. Well so fur as chinges goes it do. Yer takes up a book and tries to woo the gentle zeffer, but she refooses to 'ear the voice of the charmer. Then one of the ministering angels comes along—they keeps a reg'lar stawf of 'em—about eight or nine on the day shift and free on the nite, besides a nite sister, and a sort of ark-angel or 'ouse surgint. She ses the ark-angel will come along and compress me. Well I thort I was in a pritty tite place and a bit pinched fur room orlreddy—but no matter.

Well 'e kum. I've 'eard of 'eaping coles of fire on yer enemy's onion, but wot I done to deserve it from the ark-angel I didn't no. We was puffite straingers. Wy! 'e pored liquid fire over me and tide it on wiv a bandidge. "It orten to 'urt like that," i ses. "Any'ow it'll be orl rite presently." "Yus," I thinks, "when the 'ole leg's redooced to a sinder it cawn't burn any more." Well, then I lies dahn, and puts my 'ighly orgernized collection of members on the reklinin' bored. Blime, a faker's couch 'ud 'ave bin a treat to it. It was like a row of drummederies pliced side by side. It fairly give me the 'ump. Later on one of the ministering angels looked in to see wot I was a-punching of. "Yus," she ses, "there's so much biking done on it after each pay-shunt." Well orl I can say is I 'ope they 'ad the best pewmatic tires and spring pillers. It 'ud do very well for a seenic railway, there's so many ups and downs. Talking of pillers mine's stuffed wiv brick-bats, and it's a bit 'ard on the upper story wen yer lays it dahn to rest.

At ten o'clock aht goes the lite, and wot wiv the pay-shunts as feels bad and rings ther bells and the angels a flying up and dahn to look after 'em you have plenty to fink of besides naycher's sweet restorer.

Ahtside the 'otel there must be a motor garawge or a traction engine testing grahnd, and the sahnds from this, a good selekshun of church bells, and frequent calls from wot some wag 'as eufemistically named "London's Silent 'Ighway" you 'as to slip in pretty nippy if yer intends ter get ter sleep.

Well, so it went on for hahrs, until fin'ly up comes a gawdian angel and severs the gawdian not wiv a dose of aspirin. I 'ad a good mind to sneek two tablows aht of the box wen she wasn't looking, but I allus likes to play the gime. Verchew was reworded thow ony parshully, and soon after six up comes another angel and awsts wot I'd like fer brekfus'. "Enythink wot's goin', Miss," I ses, and fin'lly fixed on bacon and eggs, tea and mormerlide.

Now I must mike too egsplanashuns, gawdian angels I'm goin' to call nusses in fucher, its shorter, and that's wo't they calls 'em in the 'otel. Secondly one of the nusses 'ad over nite by the direckshun of the ark-angel (that's too I owe 'im) offered me some confexionary. (1) Lickerish, or (2) some stuff squeezed out of a plant of a kind of oily nachur, or (3) flat brahn sweets. Nacherally I chose the lawst. She sed I co'd 'ave two. I never likes to impose on peeple's good nacher, and sed I wood not depreve 'er of more than won. It was quite onlike most sweets, leastwise, most es I've tisted, peraps some spechul kind, but a've reason tu beleeve it was a multum in parvo, or contained some noxshus principle.

Before brekfus there are lots of funkshuns, visits from various people—Ablations and so on, then a nuss to dust the bed, a wardmade to tidy up ginerally, and anuther nuss to put a sort of torpedo under yer tung. It don't do you eny good, and you cawnt even tiste it. Still you 'ave to 'ave it. By ten o'clok you 'as more tucker. It's in the regulashuns, not as I wonted it, so I contented meself with some essence of gee-gee in a tea-cup wiv a furrin sounding name and a couple of doorsteps, very thin.

At dinner all I got was the sime ony withaht the door-steps. Arrever, I pawsed the time as well as I co'd, gettin' a little of my own back in the way of sleep, and readin' from books and pipers.

Before five one of the nusses came and took me to the lethal chimber. It was all wonderfully lit up with electricity and mite 'ave seemed quite pleasant under other circs.

The chief exekushioner was standin' near wiv 'is accomplis, and 'eld aht 'is 'and. I took it. It is the kustom. 'E was going to do it "painless," as the dentists say; under chloroform or gas or either or both. "Oh, either," I ses; and 'e ses, "I'll give it you by the open method." Well, I never 'ad a closer time in all my life. (This was the ark-angel speaking, and now I owe 'im three.)

'E pored red 'ot tin tax (more searchin' than any Budgit) all over the inside of my chest, and sent the sawdust in my 'ed a buzzing rhand an' rhand, and the hearterics or little pulses in my brain was a strainin' fit to bust.

I codent 'elp torkin, "Galileo's quite rite," I ses, "the earth dose go rharnd." "Never mind about Galileo," 'e ses, "you take deep breffs." If I co'd a got at 'im then, but someone 'eld my 'ands. Then the chief exekushioner awsted the ark-angel if he would come to dinner, and 'e sed 'e 'd like to, but 'e added "'e a'nt reddy yet." "Any'ow you'll 'ave to wear black," thinks I. . . .

"Well that's funny" I thinks to myself. I *was* in bed somewere or other, but ware, I couddent, for the life of me tell, so I awsted "am I in Guy's or in my 'appy 'ome?" "Wy in Gy's" they ses. "Then wot be that mark on the wall," ses I. "Decoration," she ses. "And did the exekushioner do it all alone, and is it done," I ses. "Yus," she ses, "all over."

"Ha! ha! ha! well that's funny; Isn't that too funny," I ses. . . . But I avent settled with that ark-angel yet.

Report ses as I was most oncomplimentary to the ark-angel and the nuss—but more of this anon.

Sport.

Rugby Football.

GUY'S v. MARLBOROUGH NOMADS.

Owing to a mutual misunderstanding, this match was arranged to be played on both grounds on Saturday, November 6th. Eventually Marlborough Nomads found it would be impossible for them to raise a team to play on the hospital ground, consequently Guy's made the journey to Thames Ditton. Scarcely a spectator was present when play commenced, and it was noticed that Guy's were below full strength, J. P. Jones, Archer, Roberts, Crook, and Stokes being away. Roe came into the side for Jones, Sampson for Stokes, and in the pack Moberly, Glendining, and Parry Jones filled the vacancies.

For some long time after play had commenced Guy's were on the defensive. With the new blood in the pack the forwards took some little while to settle down. The home side were often dangerous, but lacked finish, and the hospital gradually getting into their stride the game swung to the other end. The forwards commenced to control the scrums, and passing was indulged in by the three-quarters, enabling Stringer on the one wing and Sampson on the other to gain tries, the final pass coming from Lee and Roe respectively. Lee goaled from Stringer's try, but failed at Sampson's. However, he made no mistake from a try gained before half-time by Stringer, who gathered and scored from a judicious kick across. At half-time the score was 13 points to nil in Guy's favour.

No one enjoyed the second half, apparently, more than Lacey, who came up and joined in the attack in exhilarating fashion. The Nomads were compelled to defend almost entirely, and soon Lacey cleared the way for Sampson to score again. Moberly's kick at goal fell short. Stringer next gained a beauty under the crossbar. Lee easily converted. Twice before the final whistle Sampson got over with further tries: Lee failed with one and Hind with the other at adding the extra points. Just before the game ended Medlock, following up briskly, found Sandford fumbling, and consequently he picked up and grounded the eighth try, making the total score 3 goals and 5 tries in Guy's favour. Team:—

Guy's.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, A. S. Roe, B. F. Sampson (three-quarters); J. G. Saner, C. H. Medlock (half-backs); H. R. Mullins, G. R. Hind, W. E. Williams, H. Hoby, A. V. Moberly, W. S. Stranach, V. Glendining, Parry Jones (forwards).

Remarks.—The whole side played good football, although evidently not much extended. A. S. Roe played well, and improves with each game. Sampson will do better if he lets himself go to his fullest extent.

GUY'S v. OXFORD UNIVERSITY.

This fixture, played on Wednesday, November 11th, was better favoured by the elements, the afternoon turning out brilliantly fine after a somewhat threatening morning, and heavy passing rain at mid-day. The University brought down a full side, and Guy's also fielded their best XV., so that the fine crowd that lined the ropes witnessed a grand sporting game from start to finish. The stand was literally packed, and quite one hundred people had to be regretfully turned away. It was pleasing to note the presence of many old Guy's men, as enthusiastic as ever for the success of the Hospital. They were too numerous to mention by name, but one, Mr. E. Morgan, came in for a special welcome, and many were the whispers that the finest "three" the Hospital, or is it too much to say, that any country has produced, was again visiting the scene of so many of their triumphs.

Punctually Mr. Hartley got the sides facing each other, the start being sensational, as only a few minutes elapsed when Medlock, passing to Stringer close to the line, enabled the latter to score an unconverted try wide out. Oxford replied, and the forwards got well down the field, when the ball coming loose Cunningham picked up and dropped a lovely goal. It was a great effort. Within

three minutes Cunningham repeated the feat, and as though fortune had not done enough, Turner goaled just after from a mark by Gilray. Whoever punted into the air for Gilray to mark so easily, made a sadly-judged kick. Fifteen minutes had now gone and Guy's were 3 points to 11. Oxford were working better together at this period of the game, and only a timely save by Jones averted a further score. However, close work near the Guy's 25, after all the Oxford backs had handled, got the ball close upon the line, Diggle eventually gaining a *try. Cunningham converted*, Guy's now got the ball more often, but Medlock was off his game; he could neither find touch nor pass accurately, and before half-time Oxford scored again. It was a marvellous quick-change piece of play. Guy's were attacking; Stokes running strongly passed in, when Buchanan tackled him. Jones could not reach it, and Tarr punted up field. Gilray beat Lacey and kicked on; both raced on side by side, and in the struggle Lagden got over the line. Half-time, Guy's 3 points, Oxford 19 points.

Resuming, Guy's went their hardest to reduce the lead. The forwards must be congratulated on their splendid play. No pack in England could have done more. Archer, Roberts and Stranach were in full cry for the line when Buchanan, who played a great game, drove them back. At length, after the Oxford line had been all but crossed by Medlock, Jones, Lee and Stokes individually, a fine passing run, in which halves and three's participated, enabled Stringer to run round splendidly and ground, for Stokes to convert.

For some unaccountable reason Stokes let Gilray clean away on the left, and Lacey, missing him altogether, Gilray ran on and gained a try in the corner, No good resulted. A lovely chance came to Guy's next: Lee and Stringer, practically unmarked and waiting to receive from Medlock, saw that player punt over the scrum into the very safe hands of Buchanan, who drove Guy's right back to the corner with a touchfinder. It was a most aimless piece of play. However, Stokes got off on the right, and following up a huge punt, scrambled on the line with Buchanan. Mullins, following up gamely, picked up and ran under the uprights, gaining a very popular try. Stokes goaled, and the final score read: Oxford University, 4 goals (2 dropped and 1 from a mark) 2 tries, to Guy's, 2 goals and 1 try. Teams:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, J. P. Jones, H. Lee, A. L. Stokes (three-quarters); J. G. Saner, C. H. Medlock (half-backs); H. Archer, H. R. Mullins, W. E. Williams, G. R. Hind, H. Hoby, A. H. Crook, C. S. L. Roberts and W. S. Stranach (forwards).

OXFORD UNIVERSITY.—F. G. Buchanan (back); C. M. Gilray, F. N. Tarr, H. H. Vassall, D. L. Nicholas (three-quarters); A. L. H. Gotley, G. Cunningham (half-backs); F. H. Turner. R. H. Hands, P. R. Diggle, T. Allen, R. Honey, R. W. Evers, R. O. Lagden, D. G. Herring (forwards).

Referee—Mr. B. C. Hartley.

REMARKS.—The luck was undoubtedly against us, but of that no complaint must be made. Two dropped goals, and one from a mark, inside eleven minutes is not, to say the least of it, usual. Both centres were a little slow, but they were handicapped by Medlock, who was clearly off his game. He must correct the tendency to punt aimlessly and dash after it, especially with such fast men as Stringer and Stokes to play to. Lacey had a nasty "jar" early in the game and was thus somewhat below his usual form. All the forwards were splendid, and when things looked their worst Mullins showed real leadership by pulling his side together in masterly fashion.

Association Football.

UNITED HOSPITALS v. CAMBRIDGE UNIVERSITY.

Mr. King, the United Hospitals secretary, is to be congratulated on securing so good an Association fixture for the home ground at Honor Oak Park. Unfortunately for him and for the game, ground, and spectators, the recent heavy rains had made the ground soft in the extreme, and a very short time after the kick-off the going was very treacherous. The early part of the play did not portend anything like so heavy a defeat as 7 goals to 1, and really this total does not correctly denote the run of the game, as several times, with only a little luck, success should have been attained. Rook, in goal, had much to do, but the quagmire on which he was supposed to exhibit his prowess was like a greased floor, so that he could neither get off the mark nor keep on it. The first score fell to the Hospitals, Hermann finding the net with a low shot. Farnfield soon made the scoring even; catching Rook in difficulties he easily goaled. Bache, the visitors' centre, got the lead for Cambridge, and before half-time Edwards made the scoring 3 goals to 1 against the Hospitals. Walker had had a good opportunity of getting a second goal, but though Dale's centre was good nothing came of it.

Early in the second half Edwards added a fourth, and a little later a fifth goal. Farnfield, who had played very finely throughout in combination with Edwards, kicked the sixth, and Bache was responsible for the seventh and last goal.

The Light Blue forwards showed excellent combination and had a thorough understanding among themselves. Birks played well for the home side, while Hermann, at half, was very useful, but judging the whole afternoon's play the Hospital halves should have been rather more instrumental in breaking up the attacks of the Cambridge forwards. Had the ground been in good order a different total would have resulted. Still Cambridge would have won, but not by so heavy a margin. Teams:—

UNITED HOSPITALS.—H. C. Rook (Guy's), goal; H. R. Bastard (Guy's), N. F. Norman (Bart.'s), backs; F. Bashford (St. Mary's), A. E. Hermann (London), P. S. Humm (Guy's), half-backs; R. M. King (Guy's), A. A. Henderson (University), H. Walker (St. Thomas'), A. H. Birks (Guy's), W. C. Dale (Bart.'s), forwards.

CAMBRIDGE UNIVERSITY.—C. Pinkham (Caius), goal; V. G. Thew (Trinity Hall), F. E. Maltby (St. Catherine's), backs; A. S. Carr (St. Catherine's), B. Thompson (St.

John's), N. W. Hyne (St. Catherine's), half-backs; V. Edwards (Magdalen), B. S. Farnfield (Queen's), H. G. Bache (Caius), C. E. Squire (Trinity), W. B. Harris (Pembroke), forwards.

Referee: Mr. S. F. Fradd.

GUY'S HOSPITAL v. ALLEYN.

SURREY ASSOCIATION (A.F.A.) CUP TIE. SENIOR COMPETITION. 2ND ROUND.

This round was played on the home ground on Saturday, November 6th. The start was slightly delayed owing to the Referee not turning up to time. After the recent rains the ground was still terribly soft, this fact militating against accurate passing and shooting. The opening exchanges were even. Then Birks got away and passed out for Humm to centre, Jones getting his head to the ball, but Powell cleared. Humm shortly after let drive from an awkward angle, his shot skimming the edge of the crossbar. The visitors now got more of the game, and the Whites, on either wing, made useful runs, but Guy's defence was sound, Neely especially putting in very sound work. Bastard and Mills, at full-back, also effectually prevented the visiting forwards getting within range. The few times Rook was called upon he got the ball away neatly. With neither side gaining any real advantage, and a clear score sheet, half-time was taken.

Nothing of note occurred for some time after the interval. Rodes continued to pay great attention to Birks, marking him with great persistence. Rook was tested with shots by Field and Binstead, and one or two corners were conceded. But Guy's soon gave evidence that they would last the better, and the home halves feeding the men in front more accurately, enabled Witts and King, on the right, to put in some useful runs. King sent across several perfect centres, and Jones had hard luck in not turning one of these to account. At length, Witts put across very smartly, Birks easily finding the net. Several times after this the Alleyn backs were hard pressed, and Rhodes, dashing back to assist Day and Cutter, only partially cleared; King fastened on, and eventually placed in the goal mouth for Jones to head through. After this reverse Alleyn slackened their efforts, and Birks, dribbling cleverly, worked past the backs and kicked a third goal, the ball hitting Powell and glancing through, leaving the final score 3—0 in Guy's favour. Team:—

GUY'S.—H. S. Rook (goal); H. R. Bastard. C. H. Mills (backs); C. W. Greene, A. Zorab, H. B. Neely (half-backs); R. M. King, C. I. Witts, J. L. Jones, A. H. Birks, P. S. Humm (forwards).

REMARKS.—The team is to be congratulated upon the result of this match. Every man played his hardest from beginning to end, and the result was largely due to this fact. If the team will combine as well in our other cup ties there seems every possibility of a further addition to the collection of cups in the club room. It is difficult to make remarks about any one player, for all played well, but Bastard, King, and Birks were undoubtedly in their very best form.

EVERSLEIGH "A" v. GUY'S 2ND XI.

This match was played on November 6th, on our opponents' ground. We started the game in warm sunshine, but towards the end of the second half the sun went down, and the game was finished in a damp mist.

Although our opponents turned out with only ten men, the game was closely fought out from start to finish. Soon after the start Eversleigh scored a goal. This put our forwards on their mettle, and playing well together, ably backed up by the halves, they quickly scored two goals, Wain shooting the first and Bergh the second. Guy's kept up the pressure till half-time, though on several occasions the Eversleigh forwards broke away, and Ryle had to save shots at close quarters.

The game was continued after the interval at a fast pace, and our opponents got well going and gave our goalkeeper and backs a busy time. There was no more scoring, however, for though both goals had narrow escapes, and Guy's were frequently pressing, the Eversleigh defence always succeeded in getting the ball away just in time, and a strenuous game ended with the score: Eversleigh, 1; Guy's, 2.

REMARKS.—The whole team played well together. Amongst the forwards the inside men played a very good game, Berg, at centre, especially causing our opponents' defence a great deal of trouble near goal and opening the game out well in mid-field, whilst Wain's shots were always dangerous. The halves were in great form, Ryle being very energetic and passing to his forwards with rare judgment, whilst Steele was always on his man and kept the left wing going well. Keer, at back, was successful in stopping many an ugly rush by his timely tackling, and Ryle, in goal, always got the ball away well after saving good shots.

United Hospitals' Hare & Hounds

The opening run was held on Saturday, October 30th, from the Green Man, Blackheath Hill, those turning out for the five miles run including the following Guy's men:—W. E. Levinson, A. P. L. Johnson, F. Cook, F. C. Godding, H. F. Hogben, J. R. Barrow-Clough, W. K. Fry.

The Annual General Meeting was afterwards held, Dr. Munro presiding. Mr. W. K. Fry was elected Hon. Sec., and Dr. Munro re-elected President. It was resolved that the distance of the Inter-Hospital should be reduced from ten to seven miles, and that matches should be arranged against Dublin University and various Colleges.

Births.

BARBER.—On November 6th, at 45, Friar Gate, Derby, to Dr. and Mrs. Hugh Barber, a daughter.

CONSTANT.—On October 25th, at Gravesend, the wife of Frederick Constant, L.D.S. Eng., of a son.

DENNY.—On November 4th, at the Royal Naval Hospital, Cape of Good Hope, the wife of Staff Surgeon Herbert H. R. Denny, R.N., of a son.

Marriages.

DESPREZ—CLARK.—On November 3rd, at Holy Trinity Church, Barnstaple, by the Rev. W. Richards, Vicar of Newport, assisted by the Rev. H. J. Aldworth, Henry Soulbieu Desprez, L.R.C.P., L.R.C.S., etc., of North Tawton, Devon, eldest son of Philip Henry Soulbieu Desprez, late of the Admiralty, to Ellen Selina (Nellie) Clark, younger daughter of the late Mr. and Mrs. O. Deacon Clark, of Rangoon, Burmah, and Orpington, Kent.

LACEY—BLYTH.—On October 30th, at the British Embassy Church, Vienna, Edgar E. Lacey, L.D.S. Eng., to May, daughter of P. J. Blyth, Esq.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

November.

Sat. 27. 1st XV. v. Streatham (Home).
2nd XV. v. Tonbridge (Away).
1st XI. v. Wanderers (Away).
2nd XI. v. Reigate Priory "A" (Home).

Mon. 29. Clinical Lecture by Mr. G. B. Smith (Gynæcology), 1.15 p.m.

December.

Thur. 2. Messrs. Symonds' and Steward's Take-in (Messrs. Crook and Evans).

Sat. 4. 1st XV. v. Northampton (Away).
2nd XV. v. Marlborough Nomads (Home).
1st XI. v. Old Westminsters (Home).
Debating Society's Meeting—Impromptu Debate, 8 p.m.

Mon. 6. Clinical Lecture by Mr. Ormond (Ophthalmology), 1.15 p.m.
Physiological Society's Meeting, 4 p.m.

Thur. 9. Messrs. Lane and Fagge's Take-in (Messrs. Chapple and Lees).

Passim.

SINCE the death of Sir Thomas Stevenson last year, we have had many inquiries about a portrait of him similar to the series of portraits which have from time to time appeared in the GAZETTE. We have pleasure, therefore, in presenting to our readers with this number a very characteristic portrait of him, which will be appreciated by those who knew him during his lifetime as a souvenir of a very attractive personality, and those who did not know him will be reminded by it of one of the most famous of the men who have made the Medical School of Guy's Hospital what it is.

SCHEMES designed to bring the schools of the University of London into association for social or athletic purposes have not hitherto met with any great measure of success, and several reasons why this should be so are at once apparent. The schools of the University are widely separated; they contain widely diverse social elements; and, moreover, many of the individual schools are large enough to be self-contained, and their students naturally desire to support their own local institutions rather than to take a share in the corresponding University institutions. For these reasons, to students of a school such as Guy's, these University societies offer few attractions.

BUT there is one scheme of this nature which will probably prove more attractive to Guy's men. A committee, consisting of delegates from the various schools, has been appointed to organise a University of London Club. The committee decided, before proceeding any further, to circularize the graduates and undergraduates of the University with a view to finding out how much support may be accorded

to the scheme. This circular is included in our present issue as an inset, and it sets forth the general lines upon which the club is to be founded if sufficient support is forthcoming. We hope all our readers who are in favour of the scheme will post the return half of the card, with their names, without delay, so that the club may be actually started as soon as possible.

We hear that the Guy's Hospital Musical Society are to give the first concert of their winter session on Tuesday, December 14th. We are looking forward to the event with some interest, for it is their first performance under their new conductor, Mr. Clive Carey. An interesting programme has been arranged, including one of the choruses from Sophocles' "Œdipus in Colonnos," arranged for men's voices by Mendelssohn, and a very charming cantata for female voices, entitled "The Sands of Corriemie." Mr. Carey himself is to sing some old sea chanteys, with male voice choruses. Altogether the programme is both attractive and good, and the evening should be a most enjoyable one.

A lecture on the Special Reserve of Officers for the Territorial Army will be delivered on Monday next, November 29th, at 4 p.m., by Major W. G. Beyts, R.A.M.C., who is an old Guy's man. This lecture should be well attended, not only on that account, but also because of the importance of the subject to men who are lately qualified or are on the eve of qualification.

The Annual Choir Dinner was held in the Governors' Committee Room on Thursday evening last, Sir Cooper Perry in the chair. There were no speeches, but Mr. Fagge, as President of the Choir Committee, and in the name of the company, asked the chairman to convey to the Treasurer and House Committee their thanks for the evening's entertainment, which had been so much appreciated. After the dinner the guests went on to a most delightful dance given in the newly-decorated Court Room by Sir Cooper and Lady Perry. It is, we believe, the first function which has been held in the Court Room since its rejuvenation, and its youthful appearance and the excellence of the floor for dancing were commented upon by everybody. To the seductive strains of "Venus on Earth," "Songe d'Automne," and the rest, and the irresistible rhythm of the "Teddy Bear's Picnic," the guests waltzed and two-stepped to their hearts' delight, and the only sad moment was when the dance had to come to an end. All who were there—the sisters and nurses, the residents and the members of the choir—appreciated very much Sir Cooper and Lady Perry's charm as host and hostess, and their great kindness in providing such a welcome change from the daily round of hospital work.

It has several times been suggested that a museum of hospital antiquities should be formed. There is, of course, already a small collection of old surgical instruments on view in the Gordon Museum, but the collection we have in view would be of more general interest to outsiders, and would not have any connection with the morbid. The nucleus for such a museum already exists in the few objects of interest, such as Thomas Guy's ring and walking-stick, which are preserved in the Office of the Clerk to the Governors, and in the Roman vases which were found during excavations about the hospital, and now, we believe, are to be seen in the Works Department. There are two essentials for the establishment of the little museum—some energetic person to organise it, and a suitable room to establish it in. If these two essentials could be secured, we feel sure the museum would be a success, and as a solution of the difficult problem of what to show hospital visitors, if for no other reason, it would be very useful.

It was incorrectly stated in our last issue that Dr. Pembrey had presented a number of volumes of the Surgeon-General's Index Catalogue to the library. Dr. Pembrey asks us to state that they were the gift, not of himself, but of Dr. Haldane. A vote of thanks to Dr. Haldane was passed at the last meeting of the Library Committee.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

From a Grateful Patient.

SIR,—As a student, but recently a patient in the wards, I do not wish to let another GAZETTE go by without offering a word of gratitude and thanks to the doctors, dressers, sisters, nurses, chaplains—in fact, to all connected with the wards—for the great kindness and attention received at their hands.

But especially to the nurses are my grateful thanks due, since seldom have I experienced such unfailing cheerfulness, kindness and care.

It is only after having been as a patient in a ward that one can fully appreciate or even understand the splendid work carried on there; and I would ask you, by publishing this letter, to tender to the hospital staff my warm appreciation and thanks—I am, Sir, yours truly,

STUDENT.

The late Conductor of the Choral Society.

DEAR SIR,—It is a far cry from Guy's to India, and so by the time this reaches you other letters may have preceded it on the same topic.

But I cannot allow the resignation of Mr. Henry Taylor, mentioned in Passim of October 2nd, to pass without adding a word of appreciation for one under whom and with whom I worked for three and a half years.

From the first practice I attended—hailed thither by the indefatigable Richard Felton—I was struck by the keenness and painstaking qualities of our conductor, and throughout those three and a half years his interest never flagged, and his optimism never suffered a reverse, in spite of many disappointments, and the oft-times irregular attendances at the practices.

Those who have worked with him as secretary will one and all bear me out in this, and we know also how much time and thought he spent on ensuring the success of the concerts, how often his hand was dipped into his own pocket to help the funds of the society, and how ready he was at all times to assist any member with extra practices and tuition.

You mention in Passim the past history of the society, and it was indeed one of doubt and difficulty for some years—a society often in monetary debt, and always indebted to the Nurses' Choral for the piano—but Mr. Taylor's dogged perseverance and enthusiasm, coupled with the goodwill of members of the staff and our late Matron, saved it from an untimely end, and on amalgamation of the sections it could boast of being one of the only hospital clubs on a sound financial basis.

Now, one by one, the earlier supporters are departing—Mr. Taylor, the conductor, his daughter, the accompanist, and Miss Swift, a strong supporter, have gone, and I cannot do better than reiterate your wish that the society will in the future secure the help of others such as they.

A more brilliant musician, perhaps, the society may obtain as a conductor, but it will be hard to find one who is more enthusiastic and painstaking, and who has the interest of the society more at heart than had Mr. Henry Taylor.

Before I end, may I, from past experience, remind members of the G.H.M.S. that there is nothing which so cheers the heart of a conductor as a regular attendance at practices, and the senior men that, in this matter as in others, example is better than precept.

Trichinopoly, S. India,
October, 1909.

F. A. B.

The Out-Patients' Christmas Tea.

DEAR SIR.—In a few weeks' time it is hoped that Guy's Hospital will entertain some 670 Boro' children at the annual Christmas tea and tree. All of us know, and are frequently reminded by the children themselves, with what eagerness this function is looked forward to by our guests.

Last year the secretary was able to write a most glowing report of the success of the Out-Patients' Tea—success which was mainly due to the generosity of past and present Guy's men, as well as others who were kind enough to interest themselves in this undertaking.

May I, therefore, Mr. Editor, appeal to these ladies and gentlemen again, and all others who have joined the hospital since last Christmas, to subscribe as generously as they are able towards one of our most important Christmas functions?

Subscriptions will be gratefully received by Sister Out-Patients, Sister Surgery, Sister Institute, the four O.P. officers, the Dental H.S., the Student Demonstrators of Anatomy, and others.

It might be mentioned that there was a balance last year, of which £30 was voted to form an "Out-Patient Samaritan Fund." This fund is managed by two Out-Patient Visitors and Sister Out-Patients, and last year did most excellent work. It is to be hoped that at least an equal sum may be handed over to the fund this year. I have also received a gift from someone who wishes to remain anonymous of a packet of chocolate for each child.

There are some 300 dolls to be dressed, and any help in this respect will be gratefully received by Sister Out-Patients.—Yours truly,

H. R. MULLINS
(Hon. Sec. Christmas Tea, 1909).

A Useful Sign in Suspected Cases of Colles' Fracture.

Experience, especially radiographic experience, shows how often mistakes are made in connection with the "Colles'" fracture.

In all but the most obvious cases, where the deformity is strikingly apparent, the diagnosis lies between fracture and sprain. The fracture may be of radius, of radius and ulna, or of carpal bones, more usually the scaphoid. The sprain may be caused by the tearing of wrist ligaments, or, at times, a mere straining of ligaments and tendons may account for everything.

Dislocations at the wrist being of great rarity need not be seriously considered in this connection.

The case which presents the greatest difficulty is that of a crack in the lower end of the radius or a complete fracture in perfect position or slightly impacted. The symptoms are often trifling, and pain, though generally severe, has no characteristics to distinguish it from the pain of sprain, etc.

The Colles' fracture is one of the most common with which the radiographer has to deal, and one has examined as many as twelve in one day. Their frequency is somewhat dependent upon the state of the pavements, and therefore on the weather; also on the popularity of skating rinks. Mostly patients tell one that they fell on the open hand. This is probable, but as people rarely notice with any degree of accuracy what happens to themselves in an accident, the point is not an important one.

One's routine method of examining these cases has been to place the patient's hand, palm downwards, upon the couch, the X-ray tube being beneath. An antero-posterior view is thus presented upon the screen. Obvious fracture of the radius or of the ulna styloid is seen in this position. Impaction makes itself evident by the shortening of radius, and consequent want of level of the two styloid processes, as well as by the overhang of the sides of the lower fragment.

Having ascertained certain facts from a survey of this view, the hand is either turned by the operator so that the thumb is uppermost, or the patient is asked to assume this position. This is done to allow the observer to get a profile view, and to note whether the lower fragment is displaced backwards, etc. Now this is the moment when the fractured radius will declare itself by the agency of the patient's speech centre.

In every case of genuine Colles' one has never known this movement to be executed, actively or passively, without every evidence of acute pain, and if this movement can be performed with ease or moderate discomfort it has been abundantly proved by the X-rays that Colles' fracture is never present. There are always exceptions to rules, and one therefore looks forward to finding, immediately upon the appearance of this article, a quantity of cases which will not give this sign, but so far one has not come across a single exception, and this would seem to justify the publication of what one is forced to regard as a fact.

Of course surgeons tell us that movements of supination and pronation are extremely painful in Colles' fracture, but one is not aware of any suggestion that as a differential diagnostic sign this movement is of paramount importance. Furthermore, one does not seem to have read that mistaken diagnosis in wrist injuries is common even with the best of surgeons, that the radiographer is made familiar with this fact several times a week, and that great tact is essential on his part if he wishes to avoid unpopularity with the profession on this account. In any case it is rare in one's experience to see anyone utilize this simple diagnostic fact, and for calling attention to it one makes this the apology.

EDWARD W. H. SHENTON.

Appointments.

Civil.

Miller, A. H., M.A., M.B., B.C. Camb., M.R.C.P. Lond., has been appointed Physician to the Out-patients of the City of London Hospital for Diseases of the Chest, Victoria Park.

Mumford, Wilfred G., M.B. Lond., F.R.C.S. Eng., has been appointed Honorary Assistant Surgeon to the Royal United Hospital, Bath.

Naval and Military.

Staff-Surgeon M. P. Jones, R.N., has been appointed to the *Hogue* on commissioning.

Colonel J. V. Salvage, R.A.M.C., on arrival from England, has been appointed to command the station hospital at Ferozepore, Punjab.

Periodicals Received.—The Hospital; The Clinical Journal; Manchester Medical Students' Gazette; The M.S. Journal; South African Medical Record; The General Practitioner; St. Mary's Hospital Gazette; New York State Journal of Medicine; Nursing Times.

A Spanish Hospital.

At the outset, I wish to remark that, although I have headed this article "A Spanish Hospital," I do not thereby imply that it is typical, for Las Palmas is a small island, and the hospital therein may, for all I know, differ as widely from one in a large town on the mainland as our country infirmaries differ from a London hospital.

In Las Palmas there is an institution—the only one of its kind on the island—called, by courtesy, the Hospital, and I was fortunate enough to receive a permit to go round. My companion was a Spanish lady, whose English was as yet in its infancy, and since my knowledge of Spanish is nil, our conversation lagged somewhat. To ask a question meant a delay of several minutes, and if an answer was finally vouchsafed, it generally only served to show total misunderstanding of the question; hence I was bound to rely chiefly upon my own eyes for information.

The hospital is situated in a fashionable quarter of the town, close to the cathedral. It is a pretentious building, with a large portico, supported by stone pillars, trenched by wide well-worn stone steps. We ascended the latter, and were met at the top by an important personage of aldermanic contour—the porter—to whom we presented our cards, whereupon we were favoured with a low bow and invited to cross the threshold. Here we were greeted by the matron, who acted as cicerone; she was dressed in the black garb of a nun, the sombreness of her costume was relieved by the usual stiff white collar, finished in front with two ends extending to the waist. Her head-dress was also of white linen bound closely round the head, completely hiding the hair, and drawn out on either side rather like wings. The latter proved troublesome on several occasions, for when we passed from one room to another, our guide persisted in standing in the narrow doorway, waiting for us to pass through, much to our discomfort, and ofttimes to the disarrangement of her wings.

We were conducted firstly to the men's ward, where we found twenty beds arranged very close together down each side. The bedsteads were of iron, and upon them were two mattresses, the lower of which was 12–18 inches deep, and the upper about 6 inches. Upon this lay the patient with a sheet, or at most a blanket, to cover him. At the side of each bed was a small box to hold medicines and food; these were covered with flies and an occasional mosquito or two, the chasing away of which formed the chief amusement of the convalescent patients. The cases were chiefly medical, mostly pulmonary, and of these phthisis claimed the greater number.

Over the beds were hung pictures with religious subjects, and here and there was to be seen a crucifix. At one end of every room, whether ward or workroom, was arranged an altar, over which a large crucifix was suspended, and in the centre of which was a small lamp always burning.

From the wards we passed through the building to an open space—the patio—in which a fountain was playing. Around us were plants of great variety and luxuriant foliage, such as amaryllis in full bloom, red and white oleanders, fig-trees, vines and date palms, and even the English ivy geranium, but of such a size as to be scarcely recognisable. From the patio, the design of the hospital is clear; it is built as a square, and on one side of this are the medical and surgical wards for adults; on another side is the children's ward with the orphanage and asylum, while the remainder of the building is occupied by the laundry, kitchen, bakery, and so on.

The hospital comprises more than its name implies, for it embraces a lunatic asylum, orphanage, infirmary and lying-in wards. On asking why these institutions were not kept distinct, I heard the usual tale—lack of funds. They are very poor, and although they fully realise that greater efficiency would probably result by separating the asylum from the orphanage, and both from the hospital proper, they cannot afford it. The wards are miserably lighted, and ventilation still worse; child patients, especially boys, are put to sleep in an underground ward, in which the place of windows is taken by large gratings covered by gauze curtains, like mosquito nets. Taken on the whole, the wards are most depressing, and we were glad to escape to the workrooms. Here were to be found women patients on the road to recovery, engaged in making fine lace and drawn thread work, to which the finishing touches are given by the nuns or nurses. The articles are then sold, and the proceeds devoted to the upkeep of the institution. In other of the workrooms we saw women occupied in a similar way, but these were not necessarily patients; they were for the most part without relations, but possessed of little money, and they came to the hospital to be taught lace making, at the same time contributing a little towards their keep.

Our next visit was to the operating theatre, a room with a stone floor, plastered walls and ceiling, and one window only, through which a small amount of daylight entered. The sole furniture of the room consisted of an operating table, not of recent date; opening out of the theatre was the sterilising chamber, containing a small steriliser for bandages, lints, and so forth; a distilling apparatus for distilling water, and a cupboard in which was an assortment of instruments—gynæcological, ophthalmic, and general surgical instruments, for there is only one theatre, and here all operations are performed. There is a staff of twenty-five nurses or nuns attached to the hospital, all of whom devote themselves and their money to the work; on the understanding that they are actuated solely by motives of philanthropy. Their medical knowledge is scanty, for they are not trained in our sense of the word, and everything, even to the taking of temperatures, is left to the doctors. There are two doctors in connection with the hospital, both Spaniards, who attend daily in the morning, between seven and eight o'clock, when the operations of the day are performed, and occasionally in

the afternoon. They are not resident, and have to be telephoned for whenever an accident case is brought in, but fortunately such a thing is a very rare occurrence in that happy-go-lucky community where life flows smoothly and placidly along.

Just before leaving we were shown a small swing door, rather like the door of a cupboard, situated in the porch, but outside the hospital buildings proper; this door bore the Spanish word "Torno," and upon opening it there was revealed to our astonished gaze a small cradle. Mothers desiring to be rid of their children — usually young ones—choose a convenient moment and place them in the warm cradle, knowing that the little ones will be received without awkward inquiries being made, and will be well cared for. These unknown children form the majority of the inmates of the orphanage. It may be contended that this is an encouragement to desertion, but there is another side to the question, and there can be no doubt the children benefit greatly by such an arrangement.

At last our interesting visit drew to a close, and on expressing our pleasure, it was made to appear as if we were conferring a favour rather than receiving one. We were treated with the utmost kindness and courtesy throughout.

This must be regarded rather as a sketch of my impressions, for as an account of a Spanish hospital I fear it is far from complete, since, as I have already remarked, the difficulties in the way of obtaining information by word of mouth were almost insurmountable.

H. L. J.

Guy's Physiological Society.

A MEETING of this Society was held on November 22nd, Mr. Ryffel being in the chair.

In spite of the fact that he had broken his leg on the previous Saturday, Mr. Mather was able to read his paper on the "Physiology of Birds' Eggs."

The white of egg is largely composed of albumen with a little fat, whereas in the yolk there is a great amount of fat present, its proportion varying greatly in different eggs. The membrane of the egg is formed in the oviduct, as is also the shell, the membrane determining its size and shape. Double-yolked eggs are caused by two ova dropping into the oviduct at once, both becoming enclosed in the same membrane.

In discussing the colour of eggs, the author gave a list of pigments which may be found in the shell, and gave the two theories which have been put forward to explain the function of colouration. The older theory is that the colour is mainly for the purpose of concealment, while the later theory, which the author upheld, is that the colour serves to protect the germinal discs from the harmful influence of the sun's rays.

In conclusion, the paper dealt with the different shapes of eggs, and gave illustrations of their purposeful character.

Pass List.

Royal College of Surgeons of England, November, 1909.

FIRST EXAMINATION FOR THE FELLOWSHIP.

Schlesinger, E. G., B.Sc. | Tanner, W. E.
Todd, A. H., B.Sc.

FINAL EXAMINATION FOR THE LICENCE IN DENTAL SURGERY.

PARTS I. AND II.

Bradnam, C. H.	Roberts, J.
Orton, P. H.	Thornton, H.
Powell, R. W.	

PART I. ONLY.

Barnett, C. H.	Lowe, F. A.
Edgar, N.	Reynolds, A. J.
Dymott, G. V.	Ruck, C. F. L.
Glover, H. H.	*Swallow, N.
Hoby, K. G.	

PART II. ONLY.

*Bull, F. B.	*Kemp, L. J.
*Fiddick, T. L.	*Morris, C. Graves.
*George, J. D.	*Miller, W. C.
*Humm, P. S.	*Pomeroy, J. M.

* Denotes completion of examination.

FIRST PROFESSIONAL EXAMINATION.

MECHANICAL DENTISTRY AND DENTAL METALLURGY.

Bacon, E. W.	Rodgers, R.
Bergh, V. E. D.	Shore, H. D.
Charter, E. J. M.	Trounce, T. R.
Cocks, J. S.	Wain, D.
Farrington, R. G.	Warner, G. Heegaard.
Langley, L. S.	Watson, C. T.
Percy, A. J.	Wright, L. D.
Richards, J. G.	

MECHANICAL DENTISTRY ONLY.

*Burch, H. J.	*Johnson, A. P. L.

Webb, S. J. F.

DENTAL METALLURGY ONLY.

Bailey, H. L.	Lakeman, W. S.
Desai, C. M.	*Ollis, W. S.
*Dumayne, H. O.	

*Denotes completion of examination.

Final Conjoint Examination, Oct., 1909.

The following correction should be made in the list given in our last issue:—

MEDICINE.—Add A. E. Rayner.

Two Cases of Tubal Gestation.

ABSTRACT OF
CLINICAL LECTURE BY Mr. TARGETT.

GENTLEMEN, — We have had two interesting cases of Extra-uterine Gestation in Queen ward recently, in one of which the gestation sac was placed at an unusual site, viz., at the junction of the Fallopian tube and body of the uterus. After relating the clinical details of these cases, it will be worth while to consider some points in the diagnosis and treatment of this condition.

Our first case may be called a typical example of tubal gestation, both as regards its clinical history and morbid anatomy.

CASE I.—TUBAL GESTATION ENDING IN ABORTION AND HÆMATOCELE.

Mrs. G., aged 35. Had hysteropexy done in the Rotunda Hospital in December, 1908. Was quite well till Monday, October 4th, 1909, when she had a sudden attack of abdominal pain, and was sick. She was then three weeks over time, and the menses had been previously regular. The patient was put to bed and a doctor called in, who diagnosed ruptured tubal gestation. She was kept under observation, but as her condition did not improve she was admitted to Queen ward on Friday evening (8th). Temperature 99°, pulse 108.

On examination.—Decidedly anæmic, tongue dry, much tenderness over whole abdomen, and the lower zones did not move on respiration. On vaginal examination a lump the size of a small orange could be felt behind and to left of the uterus. It was fixed in the pelvis, and felt firm to the touch. There was some softening of the tip of the cervix, and a reddish-brown discharge issued from the vagina. A soft substance lying in the vagina was removed, and when examined under water it proved to be a large triangular piece of a decidual cast.

Operation (October 9th, 1909).—On opening the abdomen, the uterus was found to be tethered to the anterior abdominal wall by a fibrous cord about two inches long, resulting from the hysteropexy. The pelvic tumour consisted of a tubal mole surrounded by much firm black clot, and the whole mass was adherent to the left tube and broad ligament. The left uterine appendages were removed, as much as possible of the clot was wiped away, and the abdominal wall was then closed without drainage.

The specimen consisted of a somewhat pyriform "mole," in the centre of which was an embryo about three-quarters of an inch long. The remainder of the mass was composed of black and partly decolorised blood clot. The ampulla of the left tube had been dilated, but was now shrunk, and the abdominal ostium was open and much larger than normal. There was no rupture of any part of the tube. Hence it is fair to conclude that the tubal mole was aborted through the patent abdominal ostium, and that a hæmatocele was then formed around it in the pelvic cavity. The patient made an uninterrupted recovery.

A letter received from the Rotunda Hospital stated that this patient had suffered from a fixed retroversion of the uterus with extensive adhesions between it and the intestines. These had to be divided in order to free the uterus, and the right Fallopian tube was so diseased that it was necessary to remove it. The left tube, however, was not interfered with. The round ligaments of the uterus were then stitched together in front of the body, and were attached to the parietal peritoneum. Finally, one silk suture was passed through the fundus uteri and then through the peritoneum, after the manner of Howard Kelly's "ventro-suspension" operation. This mode of suture explains the long thin cord found at the operation, connecting the fundus with the abdominal wall. The previous history of this case is interesting, because the perimetric adhesions may have led to the tubal gestation by impairing the conductivity of the tube, either through inflammatory changes in its mucous membrane, or by twisting and kinking of its lumen. Though it was necessary to remove the cord attached to the fundus uteri, the adhesions in the front of the body were not disturbed, and it is satisfactory to note that when the patient left the hospital the uterus was in a good position.

CASE 2.—TUBO-UTERINE GESTATION ENDING IN RUPTURE AND SEVERE INTERNAL HÆMORRHAGE.

Mrs. D., aged 29 years. Has one child 3½ years old. No abortions. On September 23rd, 1909, when about two weeks over her proper period, she was suddenly seized with severe pain in the left iliac region; it spread over the abdomen and caused vomiting, diarrhœa, difficulty in breathing, etc. Four days later there was a slight discharge from the vagina, but no "cast," or membrane, was observed. The patient was kept in bed a fortnight, but though the severe pain subsided, she continued to have discomfort in the left side, which prevented her

from moving about as usual. On Monday morning, October 18th (twenty-five days after the first attack), she had a second attack of very severe abdominal pain, which was worse than the first, and caused great collapse with vomiting and diarrhœa as before. When seen late on Monday evening she had recovered from the collapse, but the lips were blanched, and she was drowsy from repeated doses of morphia. There was a little brownish-red discharge from the vagina; no secretion in breasts. The abdomen was extremely tender, especially on the left side, and there was a large area of dulness above the left groin, with resistance on pressure. On vaginal examination there was no tumour to be felt in Douglas's pouch or behind the uterus; but pressure on the cervix caused much pain. The fundus uteri could not be defined; it seemed to merge into the swelling felt in the left iliac region.

The following morning the patient was admitted to the hospital, and after resting some hours in the ward she was again examined. There was now a distinct abdominal swelling which occupied the whole of the left iliac region almost to the level of the umbilicus. It was much better defined than on the previous evening. The patient was also less anæmic, and the severe pain had subsided. On vaginal examination there was no lump in Douglas's pouch, but high up in the left fornix there was an indefinite swelling which seemed to be part of the abdominal mass. The body of the uterus was not clearly recognisable, partly because the patient was stout, and partly because pressure on the cervix caused pain and rigidity of the abdominal muscles.

A diagnosis of ruptured tubo-uterine gestation was made in view of the signs of severe internal hæmorrhage, and the absence of any tumour in Douglas's pouch.

Operation, October 20th.—On opening the peritoneal cavity fluid blood and clots escaped in abundance. A tumour was found on the left side of the uterus and in close apposition to the fundus. After separating adherent coils of bowel, this tumour proved to be a molar pregnancy, the sac of which involved both the inner end of the left Fallopian tube and the adjacent wall of the fundus uteri. The left uterine appendages were removed after ligaturing the broad ligament in segments, but, owing to the great friability of the uterine tissues, the ligatures on the inner side of the sac did not hold at first, and troublesome hæmorrhage resulted. At one time it seemed as though hysterectomy would be required, but eventually the bleeding was controlled by chain-sutures down the left side of the uterus and across the base of the left broad ligament. The raw surfaces were afterwards drawn together as much as possible with fine catgut sutures, and the abdomen was closed without drainage.

The patient was rather collapsed at the end of the operation, but recovered under saline infusion and warmth, with injections of strychnine. During the after-progress of the case there was moderate pyrexia with a good deal of flatulent distension of the bowel, but eventually the patient made a good recovery.

Examination of the parts removed showed that the left ovary and the greater part of the left tube were normal. The gestation sac involved its uterine end, together with the adjoining part of the uterus itself. The "mole" formed a large spherical mass, two and a half inches in diameter, and consisted of partially decolorised and recent blood clot. There was no trace of an embryo in it, and even the site of the amniotic cavity was uncertain. Its large size showed that gradual rupture of the gestation sac had taken place in the early stages, and that the final rupture was synchronous with the onset of acute symptoms.

Diagnosis. — Without going fully into the question of the diagnosis of tubal gestation, let me remind you of these four cardinal points:—

1. Amenorrhœa.
2. Abdominal pain.
3. Vaginal discharge.
4. Pelvic tumour.

In the great majority of cases these four signs or symptoms are all present, and are sufficient for a correct diagnosis. Others, such as the passage of a decidual cast, severe internal hæmorrhage, and the like, are valuable in clinching the diagnosis, but are not always present. Let me say a few words about each of these indications.

1. *Amenorrhœa.*—Remember that this symptom is of no value unless the patient has been previously regular. Then, as in uterine gestation, it becomes the most valuable of the early signs of pregnancy. In the clinical history of the average case, the patient has missed a period and gone over her time by some ten days when trouble begins with a sudden attack of abdominal pain. There are two variations of the usual history with regard to amenorrhœa which must be borne in mind:—

a. Very rarely it happens that no period has been missed, but conception in the tube and rupture have occurred between

the times of normal menstruation. Such a case was admitted to Clinical ward a few years ago. After a normal period, and before the next one was due, gestation had occurred in the isthmus of the Fallopian tube and had caused rupture, with severe internal hæmorrhage. Operation revealed the cause of the bleeding, and saved the patient's life.

b. Another variation in clinical history is this:—The patient has what she considers to be a normal period, and a day or two after it ceases the vaginal discharge returns and becomes persistent; or, a period begins at the proper time, but does not cease as usual, and becomes persistent. Now in both these instances there is no true amenorrhœa, and consequently the diagnosis is rendered much more difficult. The other symptoms must then be taken into account very carefully if a diagnosis is to be made. Probably some of such cases pass unsuspected.

2. *Abdominal pain.*—Next to amenorrhœa this is the most valuable symptom. The phrase must be taken to include not only pain in the abdomen, but also all the symptoms which result from peritoneal irritation such as shock, sickness, diarrhœa, hiccough, etc. They are due to effusion of blood into the peritoneum which acts as an irritant; and there may be much shock, even though the operation reveals a comparatively small effusion of blood. Always hesitate to make a diagnosis of tubal gestation if there is no abdominal pain or tenderness. The situation of the pain is sometimes peculiar, *e.g.*, in the epigastric region, leading one to think of perforated gastric ulcer. At other times it is referred to the umbilical region, or to the back and hips as well as the abdomen. The effused blood tends to become encysted by adhesions of the adjacent coils of bowel to the pelvic viscera. This means local peritonitis and some rise of temperature, while the affected coils are partially paralysed, and so the patient gets much discomfort from flatulent distension of the bowel.

3. *Vaginal discharge.*—This is usually small in amount and of a brownish-red colour, resembling normal menstrual discharge. If the hæmorrhage from the vagina is profuse and of a bright red colour with clots, think of threatened abortion, not of tubal gestation. One other character is its persistence. In uterine abortion the hæmorrhage is often intermittent and comes in gushes, while in tubal gestation the discharge, though scanty, is almost always present. Do not neglect to examine any material or clots which have been passed, and are preserved for your inspection. In this way you may discover a large piece of decidua, or even a whole cast of the uterus, which will confirm the diagnosis. When the decidua is not exfoliated *en masse*, it is probably removed by superficial necrosis and disintegration.

4. *Pelvic tumour.*—This consists of the gestation sac or its contents surrounded by more or less blood-clot. The tumour should occupy one or other of the posterior quarters of the pelvic cavity, and will extend across Douglas's pouch in proportion to its size. Owing to its position, the tumour will push the uterus forwards and to the opposite side. In our second case no tumour was felt in Douglas's pouch, though there was a distinct swelling above the left groin, and an indefinite tumour could be grasped on firm bimanual examination. The absence of a tumour in Douglas's pouch may be due to the fact that the gestation sac is placed close to the body of the uterus, or if in the ampulla of the tube there may have been previous displacement of the tube due to old adhesions. I have on two occasions found an ampullary gestation in the utero-vesical pouch to one side of the median line. The condition was due to old salpingitis, leading to adhesions in an abnormal site. Consequently the diagnosis was difficult and uncertain. Remember also that recent hæmorrhage into the pelvic peritoneum may not be recognised until clotting has taken place, when the swelling becomes progressively firmer.

When the diagnosis of tubal gestation has been established, we may sometimes proceed further and form an opinion as to its situation in the tube. If pregnancy occurs in the narrow part (isthmus) of the tube, rupture will occur about the third or fourth week, with severe hæmorrhage into the peritoneum. There are cases on record in which this has happened on the twelfth or fourteenth day after coitus. In such cases there will be no tumour in the pelvis, but the symptoms of internal bleeding are so alarming that the diagnosis is usually clear. The ampullary gestation is by far the commonest variety, and it causes the outer end of the tube to sink into the pelvis in the same way as a pyosalpinx or hydrosalpinx. As it enlarges or becomes distended and surrounded with clot, a definite pelvic tumour will result.

In case 2 we ventured to make a diagnosis of tubo-uterine gestation, because there was no pelvic tumour, and the swelling that could be detected was in the abdomen, and apparently close to the body of the uterus. Moreover, the

symptoms were not so early in onset, nor so severe as in a typical ruptured isthmic gestation. The patient's clinical history clearly indicates two ruptures, one on September 23rd, and a second on October 18th, which was much worse than the first. All pregnancies in the isthmus, tubo-uterine segment, or interstitial portion of the tube must end in rupture, and the time of rupture will be delayed in proportion to the amount of uterine wall which is hollowed out by the developing ovum. Hence an interstitial gestation has been known to develop for a period of four months before rupture occurred.

As regards treatment, we now always advise operation in these cases when the diagnosis is clear or very probable. Even in doubtful cases it may be the wisest course to adopt, especially if there are recurrent attacks of pain with an uncertain pelvic tumour. The results of operative treatment are very satisfactory, more particularly as drainage has been given up. It is not even necessary to remove all the effused blood, or to separate all the adhesions. In course of time they become absorbed. The chief objection to the expectant or non-operative treatment is the long period of rest that is necessary for absorption, and during this time there is always some anxiety lest fresh hæmorrhage should occur. Not unfrequently the pelvic tumour becomes very hard, and persists for months, and may then give trouble by pressure or by suppuration.

Nursing News.

MATRON'S OFFICE.

On October 21st, Sister Mabel (Miss Chittock), Assistant Matron, and Sister Charity (Mrs. Hill), left the Hospital to open a Nursing Home in Dorset Square, in partnership with Miss E. Bell. Before leaving, Sister Mabel was presented with a set of stone-marten furs by the Sisters and Nurses.

Miss E. B. Harradine, who has been Sister of Esther Ward since October, 1904, was appointed Assistant Matron; Miss Edith M. Lear, who has been Sister of Astley Cooper Ward since 1906, was appointed Sister of Esther Ward, and Miss Annie Gimson, who completed her training in October last, was appointed Probationary Sister in charge of Astley Cooper.

Miss Hilda Vine, who has been Instructress in the Preliminary Training School since October, 1908, was appointed to succeed Mrs. Hill as Sister in charge of Charity Ward, and Miss Jentie Paterson, who completed her training in April, 1908, and since July last has been Sister at the Children's Hospital, Birmingham, was appointed Instructress in the Preliminary Training School.

On September 30th, Probationer Barker was appointed Head Nurse in Victoria Ward.

On October 4th, Nurse Mow Fung left the Hospital on completion of her three years' training, and Probationer Mather has been appointed to succeed her as Head Nurse in Addison Ward.

On October 6th, Nurse Austin left the Hospital on completion of her three years' training, and Probationer Sheldon was appointed to succeed her as Head Nurse in the Eye Wards.

On October 9th, Probationer Hepburn was appointed Head Nurse in Naaman Ward.

On October 11th, Probationer Keays was appointed Head Nurse in the Out-Patient Department.

On October 14th, Nurse Baigent left the Hospital on completion of her three years' training, and Probationer Vanes was appointed to succeed her as Head Nurse in Patience and Samaritan Wards.

On October 21st, Nurse Kenny, Head Nurse in Victoria Ward, was transferred to Astley Cooper Ward.

On October 22nd, Nurse Veech left the Hospital on completion of her three years' training, and Probationer C. Ward was appointed to succeed her as Head Nurse in Stephen Ward.

On October 22nd, Nurse M. Lewis left the Hospital on completion of her three years' training to take up her duties on the Private Nursing Staff, and Nurse White, Head Nurse in the Light Department, was appointed to succeed her as Head Nurse in Esther Ward.

On October 25th, Nurse Fraser, Head Nurse in the Theatres, was transferred to Mary Ward, and Probationer L. Turner was appointed to succeed her as Head Nurse in the Theatres.

On November 3rd, Nurse Nicholls left the Hospital on completion of her three years' training, and Probationer Foxon was appointed to succeed her as Head Nurse in Esther Ward.

On November 6th, Nurse Halden left the Hospital on completion of her three years' training, to take up her duties on the Private Nursing Staff, and Probationer Shaw was appointed to succeed her as Head Nurse in Lazarus Ward.

On November 13th, Nurse E. Bell left the Hospital on completion of her three years' training, and Nurse McKitrick was appointed to succeed her as Head Nurse in Bright Ward.

On November 13th, Nurse Banbury left the Hospital on completion of her three years' training, and Probationer Leach was appointed to succeed her as Head Nurse in Queen Ward.

On November 13th, Nurse Cornwell left the Hospital on completion of her three years' training, and Probationer Molesworth was appointed to succeed her as Head Nurse in Stephen Ward.

On November 19th, Nurse Dale left the Hospital on completion of her three years' training to take up her duties on the Private Nursing Staff, and Probationer M. Gray was appointed to succeed her as Head Nurse in Job Ward.

On November 22nd, Nurse De Laveleye left the Hospital on completion of her three years' training, and Probationer C. Moore was appointed to succeed her as Head Nurse in Miriam Ward.

*Seven Cases of Ulcerative Conditions of the Colon, Treated as Specific Diseases.

By Lieutenant H. STOTT, M.B., B.S., I.M.S.

Introduction.

During the time that I had the honour of acting as clinical to Dr. Beddard and, later, as house-physician to Dr. Hale White, it was my good fortune to watch the treatment of seven cases in which the patient complained of abdominal pain and diarrhœa, and in which blood and slime were being passed from the rectum.

It is from these two physicians, and from our bacteriologist, Dr. Eyre, that I first learnt the principles underlying the government of these conditions, and it is them I have to thank for permission to read you the following notes of the seven cases this evening; five of these seven cases were diagnosed as ulcerative colitis, and two as dysentery.

Now the present-day treatment of cases such as these shows so great an advance on that of but a few years ago, and is so pregnant with up-to-date medicinal principles, and is so teeming with possibilities of success in the future, that a brief outline of such treatment must be of very real interest to every one of us.

This advance in the therapeutics in these ulcerative conditions of the colon has been chiefly the result of an effort to treat the *specific cause* of the disease, rather than to alleviate its symptoms; but is also partly due to the recognition of surgical methods as a possible line of treatment in certain limited cases.

For the purposes of this paper, then, it is proposed to consider, firstly, and very briefly, the ætiology of these ulcerative colon conditions; secondly, the clinical and bacteriological examination which should be adopted in any individual case; and, thirdly, the different lines of possible treatment in such cases.

I.—As to their Ætiology.

The question which immediately presents itself for discussion is: What is the relation between dysentery and ulcerative colitis? Are they one and the same, or different types of disease?

Clinically these two diseases typically present two clearly-defined pictures. The dysenteric patient has contracted his disease in the tropics, his individual case being one only of an epidemic. He complains of a constant desire to go to stool, and of intensely painful tenesmus upon evacuations.

Ulcerative colitis, on the other hand, typically presents itself as a sporadic case, contracted in this country, and although the patient often has griping abdominal pains associated with his diarrhœa, there is rarely that rectal tenesmus and desire for stool so typical of dysentery.

Dysentery, too, may attack infants and the aged, whilst ulcerative colitis is practically unknown at these extremes of life.

Clinically, then, these two types of disease are quite distinct; but it cannot be denied that there are many cases which seem to link up in one long tale tropical dysentery and the sporadic case of ulcerative colitis.[1] The dysentery, epidemic in the asylums of this country, is often identical with tropical dysentery, whilst cases of ulcerative colitis may apparently become endemic (*vide* case 1 of series).

Turning to the bacteriological evidence, we are at once faced with the fact that bacillary dysentery is not due to the invasion of the colon by one organism alone, but is a state which may be produced by many bacilli, as, for instance, those described by Flexner, Shiga, Kruse, Gray, Vaillard, and others.[2]

Moreover, Celli and Fiocca believe that dysentery is caused by a pathogenic bacillus coli communis, with which they say Shiga's dysentery bacillus is identical. Again, an epidemic of dysentery has been described in the United States, which was due to the bacillus pyocyaneus[3]; whilst Durham states that many cases of British asylum dysentery are caused by a micrococcus.

The bacteriology of dysentery, then, is by no means definite.

In cases of ulcerative colitis we often have distinct evidence by the agglutination reaction, by cultivation from the fæces, or by the opsonic index, that the infecting organism is a bacillus coli communis, or belongs to the pyogenic group. This infection may have been the original cause of the ulceration, or, if some other ætiological factor in the production of the ulceration be reasonably argued, such, for instance, as mechanical irritation or trophic nervous influence, this may be granted, and a superimposed coli or pyogenic suppuration then advanced to explain the infection.

On bacteriological grounds, then, dysentery and ulcerative colitis cannot be definitely regarded as one and the same, or as different, types of disease. We can, however, approach the subject of the treatment of these two conditions with at least a working hypophesis, if we surmise, in either case, that, owing to the pathological virulence of the organisms in the alimentary tract, or to some decrease in the resisting power of the colon wall, an invasion of the mucous membrane takes place, inflammation and ulceration follow; and if, on the one hand, the infection happen to be by a dysenteric type of organism, we have a patient with an attack of dysentery; —or if, on the other hand, the invasion be by any other of the pathogenic bacteria, we have an attack of ulcerative colitis, or, clinically, if the case be an isolated one, and the disease be contracted in this country, a diagnosis of ulcerative colitis should be made, whilst, if it be contracted abroad, epidemically or endemically, then the patient has tropical dysentery.

It may be mentioned here that in many chronic cases of undoubted tropical dysentery, the dysenteric organism

* Paper read before the Guy's Physical Society.

1. Hawkins, "An Address on the Natural History of Ulcerative Colitis," British Medical Journal, March 27th, 1909.

2. Paper by Major Blackman, R.A.M.C., read before the United Services Society; published in R.A.M.C. Journal for December, 1908; also *vide* "Lancet," December 1st, 1902.

3. Journal of Experimental Pathology, 1898.

cannot be cultivated from the stool, and even the specific agglutination reaction may have worn itself out. Here the colon ulceration is probably being kept up by a secondary infection with the coli or pyogenic organisms, and the case will be best treated by specific measures against these latter invaders.

The important practical point to remember in any of these cases is that it is the bacterial infection which is the disease, and not the blood and diarrhœa and pain, which are merely symptomatic of the microbic attack.

II.—The Clinical and Bacteriological Examination.

The history of the patient complaining of blood and mucus diarrhœa should be obtained in the usual way. It should be especially noted if the patient has been abroad, or if the disease is endemic in his neighbourhood.

The general physical examination should be conducted so as to particularly exclude a primary source for possibly secondary colon ulcerations—such sources, for example, as a septicæmia, venous congestion from morbus cordis, or from Bright's disease.

Tuberculous ulceration and typhoid fever must also be negatived; a Calmette or Widal may here help. An embolism from malignant endocarditis will be remembered as a curiosity.

On the digital examination of the rectum, malignant growth and piles must be excluded, and simple ulceration, if present, noted. The sigmoidoscope should confirm, and possibly supplement, this knowledge.

So far, then, in our examination, we have an ulcerative condition of the large bowel, which may at once be diagnosed as dysentery or as ulcerative colitis.

The next, and immensely important point is to discover what organism is causing or keeping up the ulceration.

An attempt to do this must be made in two ways:—

i. A specimen of blood should be sent to the bacteriologist for an agglutination reaction to all the known pathogenic intestinal organisms. If one of these organisms "clumps," the patient's opsonic index to this organism may be taken, and a vaccine prepared.

ii. An attempt should be made to cultivate the infecting organism from the fæces. If cultivated, the patient's agglutination power and opsonic index to it must be ascertained.

By one or both of these methods, then, we can usually detect the causal organism, and then, indeed, our knowledge becomes rational, and our treatment specific.

We are now in a position to take up the *treatment* of these colon conditions. This at once easily falls into three groups:—

i. *Those means directed to the actual destruction of the organisms*, or to the neutralization of their poisons, *i.e.*, the specific treatment.

ii. *Those means directed to the alleviation of the symptoms of the disease*, and to the maintenance of the patient's strength, *i.e.*, the symptomatic treatment.

iii. *The surgical treatment*—

i. *The specific treatment* may be subdivided into—
- *a*. Treatment by serum-therapy.
- *b*. " " vaccination.
- *c*. " " chemical antiseptics.
- *d*. " " bacillary antiseptics. ("Soured Milk.")
- *e*. " " specific drugs.

ii. *The symptomatic treatment* may be subdivided into—
- *a*. The treatment of the local condition.
- *b*. " " wasting and loss of strength.
- *c*. " " anæmia.
- *d*. " " pain, worry and sleeplessness.
- *e*. " " hæmorrhage.
- *f*. " " diarrhœa.

iii. *The surgical treatment* may be subdivided into—
- *a*. Treatment by appendicostomy.
- *b*. " " cæcostomy.
- *c*. " " colostomy.
- *d*. " " ileo-sigmoidostomy.

We will now consider the various sub-heads separately, and refer to the seven cases, as they appear to illustrate the different lines of treatment.

a. *In the specific treatment* of ulcerative conditions of the colon, then, *the injection of anti-sera* at once has its limitations, for it is a general rule in bacterio-therapeutics that in a chronic disease a better result may be obtained by forcing a patient to manufacture his own anti-bodies, rather than by the injection of a ready-prepared stock anti-serum, especially as the serum may have not been prepared immune to that particular strain of organism by which the patient was infected.

The patient can, of course, be forced to produce his own anti-bodies by vaccinating him with the infecting organisms cultivated from his own body.

Therefore, in any case of ulcerative colitis, vaccination would seem better treatment than the use of a ready-prepared streptococcal or bacillus coli communis anti-serum. In cases of dysentery, on the other hand, for bacteriological reasons, it is extremely difficult to prepare a satisfactory vaccine—and here, then, anti-sera are indicated. When a dysenteric attack is due to the special type of organism known as Shiga's bacillus, the injection of a serum immune to this bacillus has reduced the mortality of this disease in Japan from 35 to 9 per cent. This serum, then, should always be used in cases of Shiga's bacillary dysentery. Anti-sera against other of the dysenteric organisms have also been prepared, and although they have not met with the same success as Shiga's, yet they certainly deserve a trial when the specific organism can be recognised. The more severe the attack of the disease the more pressing is the need for anti-serum treatment.

Case 6 of this series is an excellent example of an attempt to treat a desperately bad case of dysentery with anti-serum. W. R. was admitted into John ward under Dr. Beddard on 6th June, 1908. He had been in the tropics, and had suffered severely from

dysentery. On admission he was extremely collapsed and passing many blood and water stools. His agglutination reactions were negative to bacillus typhosus, bacillus enteritidis of Gaertner, bacillus paratyphosus (A. & B.), bacillus Bryon and Keyser, and also to the dysentery bacillus of Gray and of Flexner. His reaction showed a partially positive result when tried against Kruse's dysentery bacillus, and completely agglutinated Shiga's bacillus. As the patient was so bad, 20 c.c. of Shiga's anti-serum was at once injected intravenously, and 20 c.c. subcutaneously. This latter was repeated after some hours, but unfortunately was of no avail, and the patient was lost.

(*b*) *Treatment by vaccination.*—If there be any merit in vaccine therapy at all, then it is in such a disease as ulcerative colitis that success from vaccination should be most anxiously anticipated; for the disease is a chronic one, whilst the infecting organisms remain localized to the large bowel. The injection, then, of a dead culture of the responsible organism to stimulate the formation of anti-bodies, which are themselves carried by the body fluids to the diseased parts, there to combat and destroy the invading bacteria, should be of the very greatest service in the treatment of this disease.

Four of the five cases of ulcerative colitis under Dr. Hale White were treated with vaccines, in conjunction with soured milk and cyllin. All of them were very ill on admission, one was almost moribund, all of them improved a great deal under treatment, and all of them were discharged apparently cured—two of the four have remained perfectly well since—one has had several attacks of diarrhœa without blood or mucous, whilst the remaining patient discharged himself against Dr. Hale White's advice, because he said he felt so much improved. He afterwards paid the penalty by relapsing. The fifth case, by far the least severe of the series, recovered on soured milk, cyllin, and astringents alone.

Case 1.—F. A. S., æt. 23, was a gardener, who had never been abroad, but many of his friends in his neighbourhood had a disease similar to his own. Six weeks previous to his admission under Dr. Hale White, on May 14th, 1909, he was suddenly seized with violent griping abdominal pains and bloody diarrhœa. He had to give up work after five days, and took at once to bed, where he remained until admission, going to stool every two or three hours, and being treated by his doctor with medicine, milk and soda, with arrowroot and brandy, but with no improvement.

On admission, he was thin and wasted, his temperature was low (97·8°), his pulse rapid (116), he was passing six or seven watery motions in the twenty-four hours, containing much brownish blood, with some mucus, and only slight traces of fæcal material. His blood serum did not agglutinate the dysenteric or coli series of organisms, but a long chained pathogenic streptococcus fæcalis was cultivated from his fæces, to which his opsonic index was 0·54. He was accordingly vaccinated with successive doses of 5, 10, 10, 10, 25 and 25 millions, and partook of the soured milk and cyllin during the whole time he was in hospital. His condition rapidly improved; after three weeks his motions averaged one daily, were firmish, and rarely contained blood. When he was discharged after ten weeks' treatment, he felt and looked well, had put on twenty-four pounds in weight, and had had no blood or mucus for the space of some five weeks. On October 26th, 1909, he writes that he is perfectly well, his motions absolutely normal, and he has moreover gained another half stone since leaving the hospital. This case, then, so far, speaks for itself as to the success of the line of treatment adopted. It would have been interesting if it could have been shown that the epidemic amongst the patient's friends was one of streptococcal ulcerative colitis.

Case 2.—W. F., æt. 26, was admitted under Dr. Hale White on 4th March, 1909. Six months before admission patient was heaving on the windlass of his barge, when he ricked his left side. The sharp pain there continued until the following day, when he was seized with persistent diarrhœa, containing both mucus and blood, which has usually been dark red in colour and sometimes in clots. Six weeks before admission he gave up his work owing to increased abdominal pain and weakness. For one month after admission he was treated with carminatives (he was much troubled with hiccough), and with intestinal antiseptics (salol and soured milk). At the end of this time he wanted his discharge, as he was no better. His motions averaged some three a day, were very fluid, consisting chiefly of darkish brown blood, at times forming jelly-like clots, and at others being intermingled with quite bright red hæmorrhage. There was some slight mucus, whilst the fæcal material present never showed the slightest tendency to formation.

A bacillus coli communis agglutinated by his serum was grown from his fæces, together with a pathogenic streptococcus. His index to the bacillus coli communis was 0·97 and to the streptococcus 1·12. He was accordingly vaccinated with 5, 5, and 10 millions bacillus coli communis, and 5 million streptococcus in succession, and was put on cyllin. He rapidly improved; after another month his motions were semi-solid and only slightly blood-stained, and he was without diarrhœa. Within another two weeks his motions were rarely blood-stained, and were now, for the first time in eight months, well formed. So satisfied was he with his improvement that he insisted upon discharging himself, feeling certain that he was "cured." We were not, therefore, surprised to hear that within three weeks he had relapsed. His motions during March averaged 2·9, during April 3·2, and during May 1·5 per diem. He developed a prolapse of nis rectum during his illness, but before admission to hospital.

Case 3.—T. H., æt. 34, had been in India for six and a half years some long time ago. He said he had never had enteric or dysentery, only ague. He first noticed diarrhœa in August, 1907; the blood and slime appeared later in June, 1908, at which period he was going to stool some twelve times daily. The blood would perhaps only be present one day a week. He gradually

became weaker, until admission under Dr. Hale White on May 26th, 1909, when his motions, which averaged five a day, were watery and fæculent and mixed with a small amount of brownish blood and some slime. His temperature was 98° and his pulse 80. His agglutination reactions were tried against the following pathogenic intestinal organisms, viz., Bacillus typhosus, bacillus coli communis, bacillus enteritidis of Gaertner, bacillus Schott Muller, Flexner's and Shiga's dysentery bacillus, and were found in each case to be negative. No pathogenic organism could be cultivated from his fæces. His opsonic index to his own bacillus coli communis was 1·4, and on the strength of this he was vaccinated with successive doses of 5, 10, and 25 millions bacillus coli communis. He was put on soured milk and cyllin as usual. The former increased his diarrhœa to seven or eight motions a day, for these dropped to two or three a day when he was temporarily taken off his milk, but returned again to the old number when it was recommenced. He was therefore put on large doses of astringents, and the soured milk was continued. The blood and slime had in the meantime quite cleared up, and upon his discharge, on July 25th, he was passing one perfectly normal motion in the twenty-four hours, and had not had a trace of blood for five weeks. On October 14th of this year he writes, "I keep on having attacks of diarrhœa, which last for three or four days; eight or nine motions a day, but no blood." Although he has greatly improved under treatment, then, he cannot be regarded as cured. The organism responsible for this man's trouble could not be demonstrated by the agglutination reaction, and hence it may be that it is still unrecognised.

Case 4 was undoubtedly the very best case whose progress to recovery we, in Addison, ever had to watch. He received 5, 10, 10, 25, 25, 50, 50, 10, and 20 millions of his own bacillus coli communis in successive doses at intervals of about ten days. The bacillus coli communis was the only pathogenic organism which could be isolated by the agglutination reaction and from his fæces. His history will be given in detail later.

c. Treatment by Chemical Intestinal Antiseptics.

There is some doubt as to whether these drugs are of any real benefit, but one is usually given, and of them the coal tar products, cyllin and izal,[4] would seem to be best. Dr. Hale White used cyllin, and all our cases took it well in some such form as this:—

℞ Cyllin ... ... ♏iv.
Syrupi Aromatici ... ... ʒi.
Misturæ Mucilaginosæ ad ... ʒi.
ʒi. 4tis horis.

The results obtained by the administration of (*a*) the ordinary intestinal antiseptics, (*b*) the coal tar products, (*c*) soured milk, and (*d*) a combination of coal-tar antiseptics and soured milk, is shown below in the treatment of an infant, M. D., æt. 9/12, admitted into Cot 2, Mary, on July 25th, 1909, with chronic diarrhœa. The feeding conditions remained practically the same throughout.

Date.	Treatment.	Average Motions per diem.
July 25 to Aug. 3	Dietetics	4·0
Aug. 3 to " 9	Soured Milk	3·5
" 9 to " 19	Pulv. Sodæ et Hyd. cum Cret., and with Sod. Sal. in Mist. Bismuthi Astring.	4·1
" 19 to " 27	Cyllin	2·5
" 27 to Sept. 10	Cyllin and Soured Milk	1·5

From this it would seem as though the combination of cyllin and soured milk was at least a happy one.

d. Treatment by Bacterial Intestinal Antiseptics (Soured Milk).

Metchnikoff found that when lactic acid bacilli were introduced into the alimentary canal, they inoculated the mucosa, and by the products of their growth they inhibit the multiplication of the putrefactive alkaline organisms, which cause the decomposition of the food stuffs. Alimentary toxæmia is thereby lessened, and hence the absorption of poisons from the large colic ulcerations of dysentery or ulcerative colitis is diminished, whilst the risk of secondary infections of such ulcerations is likewise diminished.

It is well known that the Bulgarian bacillus does not depend for its beneficial effects on lactic acid production alone but other acids (succinic, acetic and formic) and enzymes are also set free during its growth which it is hoped may prove detrimental to the development of such pathogenic organisms as the streptococci and the dysenteric bacilli. Hence the use of the lactic acid bacteriæ in these ulcerative conditions of the colon.

The introduction of the Bulgarian bacillus in compressed tablet form is practically useless, for the organisms are so concentrated that the hydrochloric acid of the gastric juice would most probably destroy their vitality. But the use of a culture of the organism in such a pabulum as a sufficient quantity of milk at once dilutes gastric hydrochloric acid so as to render its antiseptic properties practically negligible, and at the same time ensures the passage to the intestine of a suitable medium for the lactic acid bacillus to feed upon until such time as it becomes firmly implanted upon the intestinal mucous membrane.

The soured culture is best prepared by firstly sterilizing the milk by boiling and allowing it to cool to about 108° F., when it may be sown with the virulent organism. It should be kept at this temperature for some eight hours, at the end of which time it should have the appearance of a junket, and it may then, when cool, be well served up with cream and sugar. The cream and sugar, besides increasing the culture's palatability, form an excellent additional medium for the organism to feed upon. All our cases took O.ii. of the milk daily without difficulty, save case 2, whose diarrhœa was at first

4. Gordon on "Izal in Typhoid Fever," The Practitioner, 1908. *Vide* also article on "Izal in Dysentery," Indian Medical Gazette, *circa* 1908.

increased by it. In both Addison and Mary wards, the Sisters preferred Allen & Hanbury's apparatus for maintaining the constant temperature of the milk during fermentation, to Metchnikoff's, which was dearer and slightly more trouble to work. For travellers a Thermos flask would be of far more value than either of these. Lacto-bacilline, in the form of a powder, was the commercial preparation of the lactic acid bacillus used.

We will now consider the action of the ferment during sowing on the different constituents of the milk—carbohydrate, proteid, salts and fat.

i. *The carbohydrate, lactose, is converted into lactic acid,* which exists in the ready-prepared milk in about the proportion of 1 per cent.

Lactose $C_{12}H_{22}O_{11}$ + Water H_2O = lactic acid 4 CH_3 CH (OH) COOH.

ii. *The protein, caseinogen, is precipitated as a curd or clot of insoluble casein,* and this case is still further fermented to albumoses or peptones to a variable extent, 38 per cent. (Metchnikoff), 50 per cent. (Herschell); *i.e.*, the protein of the milk is partly predigested.

iii. *The chief mineral salt of milk, calcium phosphate, is rendered soluble, in the form of calcium lactate,* and Metchnikoff, confirmed by Martindale, states as much as 68 per cent. is thus converted.

iv. *The fat is liable to butyric acid fermentation,* in which case the soured milk has an unpleasant taste. Metchnikoff therefore recommends the removal of the milk's fat before souring; but this would seem unnecessary, and is certainly undesirable, provided a strain of the lactic acid bacillus be used which will not ferment fat, and provided, also, any butyric acid organism present in the fresh milk is destroyed by adequate preliminary boiling.

During the fermenting of milk, then, it is to some extent predigested, and hence soured milk is at once a combined excellent food and medicine.

Sugared whey or malt extract may be used as media for the cultivation of the lactic acid bacillus if the milk be distasteful.

Case 5 was treated with soured milk and cyllin only.—J. C., æt. 37, was admitted under Dr. Hale White on 18th May, 1909. He had last year an attack of diarrhœa, six or seven motions a day, with blood. On admission, he was not wasted nor very toxæmic. His pulse was 120, his temperature 97·8°. His motions averaged three a day, were partly formed, contained some slight blood with no mucus. He was put on cyllin miv. 4tis. horis, and Oii. of soured milk daily; after the first week he passed no blood at all, and his motions became quite firm and remained absolutely normal until his discharge three weeks later, save for an attack of diarrhœa of five motions on June 5th, which coincided with a small epidemic in the ward, probably due to bad fish.

e. Treatment by Specific Drugs.

Sir Patrick Manson[5] says that in his opinion ipecacuanha properly administered is as certain a specific in amœbic dysentery, as mercury is in syphilis, or as quinine in malaria.

Professor Simpson at the Royal Army Medical College taught us that you are not entitled to say that ipecacuanha is good for one kind of dysentery and not for another; it was impossible to say when it would be successful and when it would fail; therefore, in any given case of dysentery it should always be well tried.

D'Arcy Power[6] says, but does not mention his authority, that "Ipecacuanha does not seem to yield the same good results in the treatment of ulcerative colitis as it does in true dysentery. It is not worth while, therefore, to do more than give the drug a short trial when other means have failed to afford relief."

Simaruba, Manson thinks,[7] has also some sort of specific action on the dysenteric disease or its cause, and sometimes succeeds where other measures have failed.

ii. *The symptomatic treatment* of these ulcerative conditions of the colon can only be briefly referred to here.

a. The bottom principle underlying their *local treatment* is to evacuate and maintain the evacuation of the bowel, so that bacterial masses may be swept away, and decomposing pent-up discharges dispersed. This is the object of the small continued aperient doses of calomel, castor oil, and the sulphates sometimes employed, and it is also achieved by medicated rectal injections, which, moreover, wash the ulcers clean, stimulate them to heal, and induce an increased flow of lymph and opsonins to the diseased tissues; in fact, these injections are supposed to act just as a medicated local wash and hot boracic fomentation would to a foul skin ulcer.

There seems, however, to be a well-founded doubt as to their practical efficiency. Dr. Hale White is not himself at all impressed with them, and therefore it would seem better not to worry the patient with these injections for routine use, but only to employ them when especially indicated.

Case 4 illustrates very well the remaining heads under the symtomatic treatment of one of these ulcerative cases. R. B., æt. 30, was admitted under Dr. Hale White on April 29th, 1909. He had never left England. In August, 1908, he pulled in a tug-of-war, and felt shaky immediately afterwards. Two days later he passed bright red blood; this gradually increased in quantity, and his motion became more and more watery, until he sought medical advice for the first time in February, 1909. He was at once sent to bed and treated with rectal injections and slops. He gradually went down-hill, and after two months' treatment was sent up to Guy's by ambulance.

On admission he was deadly white, his face was sunken into deep hollows, and his body was very wasted. His temperature was 97·4°, and his pulse 70. His motions averaged three a day, and were almost entirely bright red blood in a brownish watery basis. No fæcal material and little slime was to be made out. Rectal examination showed ulceration within a few inches of the rectum, and this was confirmed by the sigmoidoscope.

5. Proceedings Royal Society of Medicine, March, 1909.

6. "Tropical Diseases," p. 454.

7. "The Practitioner," August, 1909.

Dr. Hale White said the prognosis was very bad indeed, he had never yet seen a case of ulcerative colitis so ill as this man was recover.

The only pathogenic organism found by his agglutination reaction, and by cultivation from his fæces, was a pathogenic bacillus coli communis. He was given his first vaccine with this organism on the third day after admission, and took his cyllin and soured milk daily. During the first fortnight the only improvement noted was that he could now pass flatus without any fluid; but, on the other hand, his general condition remained the same, whilst the blood gradually increased in amount; he was, in fact, slowly bleeding to death. As the ulceration was so low down, and as the hæmorrhage was so copious and so bright red in colour, he was now put on a daily injection with the hope of controlling this bleeding. A morphia suppository was followed in half an hour by the introduction into the bowel of the following solution :—

℞ Protargal	... ...	gr. xxx.
Adrenalin	... ...	ʒii.
Tinct. Opii.	... ...	ʒxx.
Warm water (*circa* 100° F.)		ad. Oiii.

The greatest care was taken in its administration, which averaged half an hour. The patient, who was placed in the dorsal position, with his pelvis raised higher than his head, retained the injection at first for fifteen and later for twenty minutes. Two and a half pints were given, but as he improved the full three pints were given. The solution was used daily for six weeks.

After the third injection the blood in the motion seemed less, and from this time, day by day, some improvement was noted. The hæmorrhage obviously decreased, the motions became less watery, streaks of fæcal material made their appearance, and later blended into softish masses. Attempts at formation were then seen, and finally, three weeks before his discharge on August 24th, his motions were absolutely normal in every way, and averaged one per diem.

His general condition in this time showed the same wonderful improvement. His weight increased from 9st. 4lb. to 11st. 2lb., at which for the last three weeks it remained constant, and this, he said, was his weight when in health. His appetite became excellent, and on leaving the hospital he was, to all appearances, a perfectly normal man.

Although, in my own mind, I am sure it was the injection which directly saved this man's life, yet it cannot be too strongly insisted upon that this was probably done only by controlling a symptom which in itself would have been fatal pending the action of the vaccine, soured milk, and cyllin. In other words, I doubt if he would have recovered had a specific line of treatment not been adopted.

The remaining headings under the symptomatic treatment which this case illustrates are :—

b. The treatment of the wasting and loss of strength, which, apart from the local exhaustive trouble, is due to the want of food and to the toxæmia.

The question of diet is a most important one. These patients are often kept, after the acute stage, on milk and slops, with the idea that very little residue is left after digestion for the bowel to deal with.

But two facts must be well borne in mind—firstly, that a milk diet is a starvation diet, and these patients of all mostly need food; and secondly, that although a milk diet may leave a small residue, yet this small residue is of a hard consistence, and would surely irritate the bowel as much as a more bulky but well-greased and soft ejecta, produced by a full but careful system of dietetics.

Our patient, on admission, was starved—he had been kept on milk and slops for two months before coming into the hospital. Fortunately he showed no tendency to vomiting, and so, from the first, in addition to his easily assimilated soured milk, his powers of digestion were tested successively with Benger's Food, arrowroot and brandy, eggs and thin bread and butter, whilst protein food was added in the form of Sanatogen, Plasmon, and minced chicken and meat. Increased alimentary toxæmia from the decomposition products of these proteins was not feared, because we knew that the Bulgarian bacillus of the soured milk would outgrow and kill off the proteolytic intestinal bacteria. Within ten days he was taking augmented full diet, vegetables and the coarser parts of the food-stuffs only being eschewed. It was hoped that the oiling of his food residue would be achieved by the malt and oil he took, and also by the cream, and this appeared to be so, for when his motions became formed they were always of an excellent consistence.

The toxæmia was met by his soured milk, and by encouraging him to take plenty of imperial drink and water. This also served the double purpose of replacing the fluid lost from the bowel.

c. The treatment of the anæmia was met in this case, at the end of the sixth week, with alginoid iron, gr. v. *ter in die* by the mouth, with a 100 grain course in the form of soamin subcutaneously. His blood-count showed a typical secondary anæmia, with a colour index of 1·0.

d. The treatment of the pain, worry and sleeplessness is best met by an opiate. The patient must be given good sleep at night: our man had his morphia suppository in the morning, and ten grains of the pulv. ipecæ. co., when necessary, at night.

e. The treatment of the hæmorrhage, if within reach of an injection, and if severe enough to endanger life, has been dealt with above. The protargol of the injection was, without the patient's knowledge, replaced by silver nitrate, gr. ½ ad ʒi. on two successive days. On each occasion he complained of a new and severe pain during and after the injection; he was, moreover, unable to retain the fluid for more than five minutes.

f. The treatment of the diarrhœa, if excessive, may be carried out by the administration of any such astringents as the acidi sulphurici aromatici, the mist. opii. acidi, or the pil. cupri sulphatis cum opii. But here again, we

must remember, if these astringent drugs are used, that we are merely treating a symptom of the disease.

III.—The Surgical Treatment.

a. Appendicostomy is the only surgical measure at the present day which would be employed for the relief of these ulcerative colon conditions; and this, though still on its trial, would seem to be a valuable measure when well-directed medicinal treatment has failed.

Appendicostomy was first suggested by Keetley of London, in 1894,[8] and was first performed by Wier of New York, in 1902.[9]

The objection to the operation is that it does not prevent the fæces still travelling over and irritating the ulcerations in the colon, but few measures in medicine or surgery are ideal, and if appendicostomy, by providing for the adequate irrigation and medication of the large bowel, can aid the patient to recovery or alleviation of his symptoms when medicine has failed, then it has well won a valuable place in the recognized treatment of this disease.

In case 7 the operation justified itself, in spite of the local abscess formation and slight regurgitation of fæces which took place. E. T., æt. 28, a soldier, had in 1901 enteric fever, in 1902 ague, and in 1903 rheumatic fever. In September, 1903, he contracted dysentery, and was treated in the convalescent camp, but later in the military hospitals at Pekin and Hong Kong for seventeen months. As he did not improve he was invalided to England and treated first at the Millbank Military Hospital for four months, and later both at Netley and Chatham Hospitals. He was then invalided from the Service, and entered St. Thomas's Hospital in August, 1908, where he remained for three months. During this year, until he was admitted to Guy's on August 30th, 1909, under Dr. Beddard, he has been looked after by the parish doctor. This patient's experience of medicines, diets and injections, then, must have been unrivalled. On admission his motions were watery, with little fæcal matter, but with blood and mucus.

On September 11th, Mr. Rowlands performed appendicostomy. On the 13th the protruding part of the appendix was cut off and the bowel washed with warm borax and sodium bicarbonate (℥ii. a.a. ad O.i.).

On September 17th the patient passed his first formed motion for five years, and at present, I believe, his motions have become perfectly normal in every way, whilst the patient himself is delighted with the results of his operation.

b. Cæcostomy, or (*c*) *Colostomy*, if the ulceration were confined to the sigmoid and rectum, leave the patient in such a disgusting condition as to practically place these operations out of court, and, moreover, to quote Dr. Hawkins,[10] "When the colon is out of use, it undergoes progressive contraction, even to a fibrous band, so that the closure of a colostomy with even an ileo-sigmoidostomy becomes difficult, dangerous, or impossible."

d. Ileo-sigmoidostomy for these diseases seems unjustifiable, especially in view of the possible success of an appendicostomy. In connection with the surgical aspect of ulcerative colitis, Cameron and Rippman's remarks[11] on some forty post-mortem reports of these cases are interesting. They say:—"In at least seven cases the gut was so friable that it would have rendered any manipulation during life almost certainly fatal. In fifteen cases the rectum was involved in such a manner as to render it unlikely that ileo-sigmoidostomy could possibly have been of benefit. In one case only was the appendix involved, but the cæcum was ulcerated in twenty-one cases."

In conclusion, to recapitulate, it is better to treat the ætiological factor of a disease rather than its symptoms. This, in the case of ulcerative colitis, we can attempt to do, as Dr. Hale White has shown us, by vaccination, soured milk and cyllin.

The above cases can by no means bring discredit on this new line of treatment, which, indeed, in a wider sense, brings home to us how practical therapeutics are holding their own with present-day advancements in pathological investigation.

8. Paper before York Medical Society. British Medical Journal, vol. ii, 1894, p. 1155.

9. New York Medical Rec., August 9th, 1902.

10. Hawkins, B.M.J., March 29th, 1909.

11. Proceedings of the Royal College of Medicine, March, 1909.

From the Gazette's Special Pathologist.

G. M. J., Alton.—This specimen of sputum contains a moderate number of tubercle bacilli.

Note.—We regret not being able to return wooden case as requested, owing to its having been broken during transit.

PATHOLOGIST.

Fund for Mr. A. A. Clark.

	£	s.	d.
J. E.	1	1	0
Mr. M. K. Nelson	1	1	0
Collected from the Staff of the Works Department (per Mr. A. A. Laker)	0	14	6

Change of Address.

R. E. Delbruck, M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., from 13, Buckingham Gate, S.W., to 29A, King's Road, Chelsea, S.W.

(*The Editor will be very glad to receive a postcard with notes of any change of address.*)

Books Received.—Grayson's Treatment and Filling of Teeth; Kellas's Practical Chemistry: Thursfield and Branson's Pathology; Brand and Keith's Clinical Memoranda; Cross and Coles's Modern Microscopy; Bland-Sutton's Cancer Clinically considered; Salamon's Atlas of Stomatological Bridge and Regulation Work; Osler's Medicine, 7th edition.

Sport.

Rugby Football.

STADE BORDELAIS U.C. CONTRE GUY'S HOSPITAL

We quote the following account (uncorrected) of the game and some remarks from *La France de Bordeaux et du Sud-Ouest* of November 1st:—

Ces honorables citoyens des Londres n'avaient pas hésité, apres avoir conclu un armistice de trente-six heures avec les microbes, à déserter laboratoires et hôpitaux pour venir à Bordeaux promener leurs casquettes plates et semer négligemment quelques essais dans l'herbe humide de la route du Médoc.

La troupe du Guy's Hospital, amputée de quelques-uns de ses meilleurs ténors et barytons, était, fort heureusement, complétée par un certain sir Jones, célèbre régisseur de parties de football, lequel professe cette bizarre théorie que le sifflet est confié à l'arbitre pour s'en servir le moins souvent possible; en quoi il est en contradiction formelle avec ses honorables collègues français, musiciens enragés, qui se servent de leur strident ustensile comme un aveugle de sa clarinette, c'est-à-dire avec la dernière énergie.

LA PARTIE.

Première mi-temps.

Après une série de mêlées au centre, coupée par deux coups francs, Hourdebaigt ramasse le ballon et fait la passe à Bruneau qui feinte, passe à Griffiths et l'essai est marqué. But raté.

Stade, 3 points.

Le Stade est revenu dans les 22 mètres anglais où Delaye manque de peu un nouvel essai. Il n'est que différé. Le Guy's Hospital s'est dégagé jusqu'au centre, quand un dribbling un peu échevelé mené par Thil, envoie le ball derrière l'arrière, il est poursuivi par deux Anglais et deux maillots bancs. Anouilh s'affale et marque le second essai, non transformé.

Stade, 6 points.

Les Anglais poussent une pointe dans le camp stadiste; sur une mêlée ouverte, le ballon est ramassée et passé rapidement aux trois-quarts anglais qui s'ébranlent; les passes ses se font normalement jusqu'au trois-quart aile. Roe qui, au lieu de repasser, croise en ciseaux son trois-quart centre et l'essai, superbe, est marqué. But manqué.

Londres, 3 points.

Les attaques des trois-quarts anglais se succèdent. Les passes se font par-dessus la tête des deux trois-quarts pour aller jusqu à l'ailier. Bruneau arrête à temps. Soudain, à la suite d'une passe, le trois-quart centre gauche, Johns, démarque son adversaire et réussit un magnifique drop-goal.

Londres, 7 points.

Les Anglais sont refoulés dans leurs 22 mètres. Sur arrêt de volée d'un avant anglais, le ballon va au milieu du terrain, les Bordelais s'en emparent, il va à Bruneau qui trompe l'arrière et marque le troisième essai en mauvaise position. Il n'est pas transformé.

Stade, 9 points.

Le Guy's Hospital, supérieur dans la touche regagne du terrain et obtient un coup franc en face des poteaux. Il essaie le but et le manque.

Les Anglais s'installent dans les 22 mètres bordelais; leurs trois-quarts attaquent souvent par des passes croisées et enfin la dernière permet au demi Clarcke de marquer en coin. But manqué.

Londres, 10 points.

La mi-temps est sifflée au moment où le Guy's Hospital est sur la ligne de but bordelaise.

Deuxième mi-temps.

Dès le début le jeu se cantonne dans les 50 mètres; un départ des trois-quarts anglais échoue à l'aile. Sur un long dribbling, le Guy's Hospital arrive dans less 22 mètres de Bordeaux.

Le demi d'ouverture anglais est étourdissant de brio, il ne perd pas une occasion de faire partir ses trois-quarts par les moyens les plus variés. Bordeaux a réussi à refouler son adversaire jusqu'aux 40 mètres. Une dangereuse échappée de Samson est arrêtée de justesse par Loubatié Soudain, sur un coup de pied de renvoi l'arrière anglais rate la réception du ballon. Bruneau s'en empare il est arrêté. Monier continue l'opération en dribblant: l'essai est arrêté "in extremis." Une deuxième fois, après une excellente remise en jeu de Martin, l'essai échoue au port. La position des Anglais est critique. On bataille ferme sur les buts, et ce n'est que bien difficilement que le Guy's Hospital se dégage par une excellente touche trouvée à 40 mètres.

Sur une bonne sortie de mêlée, Cazamajor lance ses trois-quarts, le ballon parcourt toute la ligne, jusqu'a Bruneau qui est ramassé à point. Le Stade est, à son tour, dans le camp anglais.

Un coup franc lui est accordé devant les buts. Griffiths, d'un coup tombé, réussit magnifiquement le but, à 30 mètres.

Stade, 12 points.

Apres une mêlée confuse, Hourdebaigt ramasse, feinte passe à Loubatie par dessus la tête de Monier, le petit trois-quart file a toute jambe et marque l'essai, but manque.

Stade, 15 points.

Les Anglais donnent un vigoureux coup de coiller; à 45 mètrés ils obtiennent un coup franc, essaient le but et le manquent.

Ils sont reconduits chez eux vivement, le ballon roule dans les buts ou l'arrière anglais touche à temps. Le Stade domine toujours jusqu'a la fin, malgré les efforts desespérés des Anglais. M. A. O. Jones proclame la victoire du Stade Bordelais U. C. par 15 points (4 essais, un but sur coup franc); à 10 points (2 essais et un drop-goal).

CE QUE DIT LE CAPITAINE DU GUY'S HOSPITAL.

Après la partie, nous avons pu rejoindre M. Mullins, capitaine du Guy's Hospital, pour lui demander ses impressions.

"Je suis très étonné des progrès réalisés par le Stade bordelais. Son jeu est homogène et rapide et si, je vous l'avoue, je ne comptais pas remporter une victoire facile, je ne m'attendais certes pas, même avec mon équipe mixte, à me faire battre de façon si indiscutable. J'ai bien regretté l'absence de Stringer et de mon vieil Hind, le meilleur avant de mon team.

"Ceci est une leçon pour les clubs anglais, habitués jusqu'ici, à se promener en triomphateurs en France, même avec des équipes mixtes."

A une question que nous lui posons :

"Les meilleurs ? Mon compatriote Griffiths, qui fit de belles choses, Bruneau et l'arrière Martin très brillants.

"J'aurais cependant enregistré avec plaisir un peu moins de fougue chez vos avants et plus particulièrement chez l'un d'eux que l'arbitre dut rappeler à l'ordre pour certaines entorses, involontaires probablement, faites à la courtoisie qui doit présider à un match amical.

"Votre public est très sportif et j'aimerais à prendre une revanche sur votre belle équipe, mais avec un team que je composerai avec un soin jaloux."

GUY'S v. LONDON WELSH.

Played away, and ended in a win for the hospital by 7 points to 3 (1 dropped goal and 1 try to 1 try).

There was a good number of Guy's supporters at Wandsworth on Saturday, November 13th, to see this game, as a close and interesting struggle was anticipated. Close it was; but Guy's should have run up a bigger total of points, as the Welsh were unlucky enough to lose the services of Maddocks, their captain and international three-quarter, in the first few minutes of the game. The hospital never seemed to really settle down to good attack, and no decent opening was made to give either Stringer or Stokes a real chance. True, when the latter did get the ball he was as disinclined as ever to "run," but his opportunities were few. The forwards heeled all the afternoon, the ball was always with the backs, but they did nothing with it. The passing was mechanical, ingenuity absent, and the attack always so obvious that the Welshmen had no difficulty in focussing their defence on the point of assault, thus warding off practically every attack.

As soon as Mullins had kicked off, and Lloyd returned to half-way, Jones secured and ran to the home twenty-five, where Maddocks and Jenkins attempted to stop him. They missed their mark, and crashed head-on into each other. Maddocks, severely concussed, was carried to a bench, and somewhat later led off. Jenkins recovered, and with real pluck played on. J. J. Thomas left the London Welsh pack to play in Maddocks' vacant position, with orders, apparently, to tackle Stringer, if he did nothing else, for he dogged the Guy's wing-man's footsteps persistently for the remainder of the afternoon, and now and again brought off a smart tackle. Jones, taking a leaf from Cunningham's book, dropped a very neat goal before half-time, and once a forward rush with Stranach, Hoby, Roberts, and Archer in the van, looked as though a score were certain, but Lloyd just managed with a flying kick to find touch.

After half-time, the London Welsh forwards played much better, and for a time Guy's had all their work to do to keep them out. But soon Guy's turned defence into attack, and play settled near the Welsh side of half-way, where Monaghan sent out a stream of passes, but nothing definite resulted, and again the home pack pressed, this time successfully, as D. J. Jones, who was up with the forwards, charged down a kick and scored an unconverted try. After Stringer had cut his way through beautifully he crossed the line, but lost the ball. Stokes went away finely on the right, giving up for Mullins to score, apparently. All were whistled back to midfield to scrum, however, for some infringement not apparent. Before long touch was beautifully found by the corner flag, and two scrums ensuing Monaghan ploughed his way over with a try, which Stokes made a good but unsuccessful attempt to add to. Thus the final score reads, Guy's 1 dropped goal, 1 try, to 1 try. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, J. P. Jones, H. Lee, A. L. Stokes (three-quarters); P. J. Monaghan, C. H. Medlock (halves); H. R. Mullins, H. Archer, W. E. Williams, G. R. Hind, H. Hoby, A. H. Crook, C. S. L. Roberts, W. S. Stranach (forwards).

REMARKS.—The forwards added to their growing reputation as a good sound pack, and look like making about the best lot that Guy's have ever been able to boast of. Monaghan was handicapped by the "whistle"; criticism in his case would be unfair. Medlock played much better than against Oxford, but he must try to run straight. The three-quarters were disappointing; considering how often they had the ball, one expected them to do more with it. Stokes must be getting weary of being asked to let himself "go," but until he does so his undoubted abilities are lost to the hospital, and his real worth can never be appreciated. Lacey seems a little unsafe at tackling; let us hope it is but temporary.

GUY'S HOSPITAL v. LONDON IRISH.

Played at Catford on Saturday, November 20th, 1909, and resulting in a win for the Hospital by 5 goals (1 mark) 3 tries to 1 try. Lee was away, and his place at centre three-quarters was filled by Pritchard. Just at first the Guy's team appeared somewhat tired, as though the exertions of the previous Thursday, when playing for Kent, had been too much for them. But they soon shook off their slackness, especially after the Irish had gained a try, and thereafter played in sparkling fashion.

The Irish kicked off down the very apparent hill, and at once adopting rushing tactics soon had the ball well down in the visitors' 25, and before long over the goal line where Brydone was the actual scorer. Sherwin missed the fairly easy place kick. This reverse, unlooked for, and therefore surprising, had a very salutary effect on the Hospital side. The forwards warmed to their work, Crook, who has never played better, setting the example, and before long Guy's were pressing, when near the posts Medlock was able to make his mark, and although Stokes had to go a long way back to get a good chance, he landed a nice goal. Not for long did the scores remain equal,

as Stokes scored an unconverted try. J. P. Jones, playing in tip-top form, opened up the game everywhere, and after a very fine run and pass by him had not been accepted, he cut out a clever opening in midfield for Stringer, who sailed round O'Connor like a whirlwind, and grounded beneath the bar. Just after, Stokes in his own 25 received from a cross kick, and showing his heels to all, also gained a try right behind. He converted both these efforts himself. Guy's crossed over with the score 16 points to 3.

Quite fifteen minutes elapsed before Guy's scored again, and then it was through the agency of Roberts. All the forwards were playing well, and twice went over in a bunch, Roberts being the actual try-getter in both instances. Stokes could not majorise in either instance, although he made excellent attempts. In stopping a rush, Medlock got damaged and went full-back, Lacey coming to three-quarters and Pritchard to half. Lacey began to enjoy himself at once; twice he sent out passes, after good runs, to Stringer, but the last-named was well marked. Not to be denied, Lacey secured again, and, running with excellent judgment, scored a very popular try, and Stokes was applauded for a splendid conversion. The visiting forwards indulged in a little hand-to-hand passing, but the final pass generally found its way "forward" and "feet" again became the order. Just before the finish Pritchard got a try, and Stokes goaled from an easy position. Guy's finished with the excellent margin stated above. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, J. P. Jones, C. B. Pritchard, A. L. Stokes (three-quarters); C. H. Medlock, P. J. Monaghan (half-backs); H. R. Mullins, H. Archer, W. E. Williams, H. Hoby, A. H. Crook, C. S. L. Roberts, W. S. Stranach, A. V. Moberly (forwards).

REMARKS.—All the forwards played distinctly well, but if one may particularise, Crook must be singled out for special mention. Monaghan and Medlock fell into each other's methods rapidly, the latter playing a much improved game. Jones, as the mainspring of the back division, played splendidly. Pritchard was useful. Stringer and Stokes did all that was necessary, the last-named putting more "go" into his play. Lacey, happily, feeling no ill-effects from Thursday's County game at Bedford, was sound.

Association Football.

GUY'S 2ND XI. v. WEYBRIDGE RESERVES.

SURREY JUNIOR CUP-TIE.

This match was played at Weybridge on Saturday, November 13th, and resulted in the defeat of the Hospital team by the narrow margin of 3 goals to 2. The game was fast and evenly contested throughout. Guy's were unfortunate in losing the services of Percy at an early stage in the game, this player being compelled to retire owing to an injury to his knee. Bevis scored the first goal for the hospital with a splendid long shot: Sutton added the second point, but in spite of strenuous efforts Guy's were unable to draw level with their opponents, who secured their third point shortly after half-time.

For the hospital Kyle played an excellent game at centre-half, and both the backs were good; of the forwards Bergh and Bevis were undoubtedly the best. It should be mentioned that, in accordance with the regulations, none of last year's winning team were available for this cup-tie.

GUY'S.—J. A. Ryle (goal); R. O. Jones and C. Lakin (backs); E. L. Jones, J. Kyle, S. Steale (half-backs); C. McClymont, A. Sutton, W. Bergh, H. Percy, S. Bevis (forwards).

GUY'S 2ND XI. v. CROUCH END VAMPIRES 2ND XI.

Played at Honor Oak Park on Saturday, November 20th.

Straight away from the start our opponents made tracks for our goal, but were soon driven back, and for the first quarter of an hour the play fluctuated from end to end of the field without any score. At the end of this time, however, Guy's began to gain the upper hand, and Bevis opened the scoring with a good shot at close quarters. After this the Vampires made frequent attacks, but were weak in front of goal. However, before long they obtained a goal, which made the score level. This was soon followed by a goal shot by Bergh, at an awkward angle, after dribbling through on the left, and half-time arrived with the score:—Guy's 2, Vampires 1.

After the interval the Vampires put on the pressure and nearly succeeded in scoring on several occasions. The next goal, however, was scored by T. L. Jones for Guy's, who had taken up the attack again with energy. Play continued from end to end of the field at a fair pace, and our opponents obtained a second goal about a quarter of an hour from time. Soon after the kick-off, Rook, who had just gone forward in place of Witts, received a pass in the goal-mouth and had no difficulty in scoring a fourth goal for Guy's. Nothing of note occurred in the remaining few minutes of play, and the game ended with the score, Guy's 4, Crouch End Vampires 2.

Hockey.

On Tuesday, October 19th, the General Meeting was held, and the following officers appointed for ensuing year:—President: F. J. Steward, Esq.; Vice-Presidents: C. H. Fagge, Esq., A. W. Ormond, Esq.; Captain: G. Y. Thomson; Vice-Captain: L. Bromley; Hon. Secretary: F. A. Dick; Members of the Committee: W. T. Clarke, E. P. Poulton, F. Kahlenberg, H. Pern, N. Camp, and E. Poock.

Negotiations are being carried on with a view to obtaining a ground at Bickley for Wednesday matches for next season, 1910–11, but in the meantime several matches have been arranged for this season.

Births.

HOVENDEN.—On November 10th, at Kitson Lodge, Barnes, S.W., the wife of Dr. Gerald S. Hovenden, of a son.

WOOD.—On November 16th, at 4, Harewood Terrace, Darlington, the wife of F. T. H. Wood, M.D., D.P.H., of a daughter.

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

December.

Sat. 11. 1st XV. v. Richmond (Scratched).
1st XI. v. Croydon Park (Away).
2nd XI. v. Eversleigh "A" (Home).
Physical Society: Pathological Meeting (Mr. Digby in the Chair), 8 p.m.

Mon. 13. Clinical Lecture by Dr. Hertz (Electro-Therapeutics), 1.15 p.m.
Physiological Society: Paper on "Blood Pressure," 4 p.m.

Tues. 14. Musical Society's Concert, conducted by Mr. Clive Carey, Mus.Bac. Physiological Theatre, 8 p.m.

Thur. 16. Messrs. Dunn and Rowlands' Take-in (Messrs. Townrow and Darke).

Sat. 18. 1st XV. v. Bedford (Away).
2nd XV. v. H. K. and S. Bank (Home).
1st XI. v. Surbiton Park (Away).
2nd XI. v. Old Cranleighans "A" (Home).

Thur. 23. Sir Alfred Fripp and Mr. Turner's Take-in (Messrs. Lee and Brown).

Fri. 24. Christmas Eve.

Passim.

THE next issue of the GAZETTE will be published on Friday, December 24th. All matter intended for insertion in that issue should be sent to the editor on or before the preceding Tuesday.

WE are asked by the President of the Residents to announce that the Residents' Theatricals will be held on Monday, Tuesday, and Wednesday, December the 27th, 28th, and 29th. Students who wish to bring friends should apply for tickets before Saturday, December 18th, to the Business Manager, Mr. Townrow. As the seating accommodation is limited, early application is necessary to avoid disappointment. We may add that the seats in the gallery will be open as usual without tickets. We hope in our next issue to give some particulars of the plays which are to be produced.

THE other arrangements for Christmas are apparently proceeding apace. From the cacophony which frequently issues from the Charities' room, we assume that the niggers are at work, sounds of other rehearsals can be heard from time to time on the other side of the Park, and some of the wards have already assumed the preliminary wires which herald the festive

season. Everyone will be pleased to hear that the same Gilbert and Sullivan party, whose concerts were so popular last year and the year before, will again make a tour of the wards during the week, with an extended *repértoire*.

The Out-Patients' Tea Fund is steadily increasing, but the O.P.O.'s are still in search of half-crowns. We hope no one will lose their first opportunity of contributing to this fund, and they may get some idea of the use to which it is put by visiting the Out-Patient Department on Christmas Day. It is about as good value for money as can be imagined, and the amount of pleasure represented by one half-crown is such that your jaded millionaire could not buy with all his dollars.

While on the subject of Christmas, we may remind our readers of the tasty Christmas cards which are printed by Messrs. Ash & Co., Ltd. The cards are decorated with views of the hospital, and several new subjects have been introduced this year. They may be obtained by nurses from Miss Smith at the Matron's office, and by men from the Librarian, or in the Smoking Room or Dining Hall of the College. Through the kindness of Messrs. Ash & Co., Ltd., who, each year, present the proceeds of the sale of these cards to the hospital funds, it becomes possible, at a cost of only twopence, to send a seasonable greeting and a pleasant souvenir of the place to a friend, and at the same time to benefit the hospital funds.

Our readers have from time to time generously responded to appeals made in these columns on behalf of old Miller, who was for many years a servant in the Students' Club, indeed, from its commencement until a few years ago. The old man has now died in one of the wards of the hospital where he worked for nearly twenty years. It is pleasant to realise that the last few years of his life were made more easy through the contributions of our readers. Mr. Croucher informs us that the balance of the fund practically sufficed to pay the funeral expenses.

The complaint is not infrequently heard that treatment is not taught, or at any rate not adequately taught, in our wards; and it is sometimes claimed that the amount of attention given to diagnosis as compared to treatment is quite disproportionate to their relative importance. An interesting discussion on this subject was opened by Sir Clifford Allbutt before the Therapeutical section of the Royal Society of Medicine during the autumn, and a report is published in the last number of the "Proceedings." The discussion is interesting, but not perhaps much more, as the speakers did not invariably keep to the point, and though several of them admitted that there was room for mprovement in the teaching of therapeutics, no one apparently had any suggestions to make as to methods. The truth is, this is a branch of the medical curriculum on which time has worked very great changes; in the good old days when the physician gathered his own herbs from the woods and fields, and prepared his own medicines, a wide knowledge of materia medica was undoubtedly necessary, but it is necessary no longer, and may safely be left to the dispensing or wholesale chemist. It is not as though there were any difficulty in finding subjects for medical students to learn. Similarly, an elaborate knowledge of pharmacy belongs to the days of elaborate prescriptions, which worked on the principle that if you put a sufficient number of drugs in them, one might possibly have a pharmacological action. And now-a-days the art of prescribing is by no means an accomplishment of every medical student, as possibly our dispensary staff could testify.

The attitude of teachers, therefore, towards the teaching of therapeutics very much depends on their point of view; your very advanced person is all for pharmacology and frog's heart

experiments, and brushes aside such minor difficulties as incompatibility which are raised by his more old-fashioned colleagues. This was very evident in the discussion before the Royal Society of Medicine, in which both laboratory workers and clinicians took part. We would welcome the views of our readers on this subject, and any suggestions they may have to offer for the improvement of the teaching in this respect, but we fear that this is only another of the many matters in which the student will have to work out his own salvation. It is one of the penalties for the giving up of the old system of apprenticeship.

There is another side of treatment which should be systematically taught to students, and that is the technique of nursing. In a large general hospital so much is done by the nurses in the treatment of the patients that this immensely important side of his work is apt to be overlooked by the student, yet when he goes out into general practice he finds that he is expected to carry out, or to give instructions for the carrying out of many details of nursing—trivial, perhaps, from a scientific point of view, but making all the difference to the patient's comfort and prognosis. The born doctors in all ages, the men, such as Ambroise Paré, who were true artists in their profession, have been born nurses also, and this must have contributed to their success with patients at least as much as their more purely professional skill. The extinction of Mrs. Gamp, and the evolution of the modern nurse, no doubt decreased the importance of this side of the doctor's work, but it is still true that the general practitioner should be a capable nurse. At the London Hospital, we believe, there is a class taught by some of the senior sisters where students may learn such details of nursing as bed-making and the giving of enemata. We think it would be a very good thing if some such plan could be adopted at Guy's, and we are pleased to hear that a start has been made in this direction by one of the hospital sisters, who instructs the dressers in her ward in the elements of nursing.

The Brown Dog at Battersea came to life for a few hours again the other day, when the Borough Council received the report of its Highways Committee on him. The report recommended that steps should be taken for the removal of the statue, and its return to the donors. This was done on account of representations on the part of the police, who estimated the cost of protecting the statue at £700 a year. Some time ago we commented on the futility of the ragging to which the statue was subjected, and subsequent history seems to show that the expectant line of treatment afterwards adopted by the students is likely to have more effect in removing the obnoxious inscription. One speaker, who moved that steps should be taken to have the inscription altered rather than the whole statue removed—a resolution which was carried with but few dissentients—said he held no brief for the students, whom he regarded as a degenerate lot, on the somewhat unexpected ground that had the statue been in Dublin "The devil and all his angels could not have kept it up."

We are pleased to hear of the following presentation to an old Guy's man on his retirement after a lengthy professional career. The extract is from the *Daily Telegraph* :—

> "At a general meeting of the Jews Hospital and Orphan Asylum Sir George Faudel-Phillips, president of the institution, presented Mr. William Soper with a handsome silver rose bowl and a tea and coffee service, as a token of the committee's appreciation of the manner in which he had performed his work as medical officer. Dr. Soper retires after forty-three years' faithful service, and takes with him the good wishes of thousands of 'old' boys and girls who have been under his care. He is succeeded by his son, Dr. Bertram Soper."

Captain H. C. Winckworth, R.A.M.C., has been created Chevalier of the Crown of Italy, in recognition of his services with the Field Ambulance at Catona, after the earthquake in Sicily and Calabria last January. The decoration was presented to Captain Winckworth by his Excellency the Commander-in-Chief and Governor of Malta, on behalf of the King of Italy.

Notices.

DATES OF PRIZE EXAMINATIONS.

Competition for the undermentioned Prizes will take place on the following dates :—

Junior Prizes for General Proficiency.

Wednesday, March	9	10—1	Elementary Anatomy.
" "	9	10—1	Anatomy.
" "	9	2—5	Physiology.
Tuesday, July	12	10—1	Histology.
" "	12	2—5	Elementary Anatomy.

Michael Harris Prize in Anatomy.

Wednesday, March 9 10—1

The date of the Practical Examination will be announced later.

The Sands Cox Scholarship in Physiology.

Wednesday, March 9 2—5

The date of the Practical Examination will be announced later.

Beaney Prize in Pathology.

Monday, July 11 10—1

The date of the Practical Examination will be announced later.

Treasurer's Medals.

Tuesday, June	7	10—1	Surgery.
" "	7	2—5	Medicine.
Wednesday, "	8	10—1	Commentary on a Case in Medicine.
" "	8	2—5	Commentary on a Case in Surgery.
Thursday, "	9	10—1	Clinical Examination in Medicine.
Friday, "	10	10—1	Clinical Examination in Surgery.

Operations to be announced later.

Golding-Bird Gold Medal and Scholarship in Bacteriology.

Thursday, March	10	10—1	Paper.
" "	10	2—5	Practical.
Friday, "	11	10—1	Vivâ Voce.

DENTAL PRIZES.

First Year's Prize in Dental Subjects.

Tuesday, March	15	10—1	Dental Metallurgy.
Wednesday, "	16	2—5	Dental Anatomy.
Friday, "	18	2—5	Dental Surgery.

1911 Prize.

Tuesday, June	28	2—4	Dental Mechanics.
Thursday, "	30	10—1	Dental Metallurgy.
Tuesday, Nov.	29	2—4	Dental Mechanics.

Second Year's Prize in Dental Subjects.

Wednesday, Mar.	16	2—5	Dental Anatomy.
Friday, "	18	2—5	Dental Surgery.
" June	10	10—1	Dental Bacteriology.
" July	15	2—4	Dental Histology.
" "	22	10—1	Operative Dental Surgery.

Second Year's Prize in General Subjects.

Tuesday, Mar.	15	2—5	Anatomy.
Wednesday, "	16	10—12	Physiology.
Thursday, "	17	2—4	Surgery (including Surgical Pathology).

Prize for Operative Dental Surgery.

The examination for this Prize takes place early in the Summer Session.

The Regulations are given on page 36 of the Prospectus of the Dental School.

Newland-Pedley Gold Medal for Practical Dentistry.

The examination for this Prize takes place in the month of February.

The Regulations are given on page 37 of the Prospectus of the Dental School.

Scholarships in Dental Mechanics.

Saturday, April 30th; Saturday, October 1st.

No Candidate will be allowed to compete for any Prize unless he has given notice to the Dean at least *fourteen clear days* before the commencement of the Examination.

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Dental News.

THE DENTAL SOCIETY.

The first meeting was held in October, nearly seventy members being present. The President, Mr. H. P. Aubrey, received a great ovation, and the business of the evening was then attended to, viz., the election of two junior members for committee to represent the 1909 entries. Messrs. Ruck and Charles were chosen as scrutineers, and the ballot was then taken.

When the scrutineers had withdrawn to count the votes, the President read a most interesting address, in which he welcomed the new members to the Society, and related to the meeting the methods of dental education at Harvard University, and told us of the stringent rules and regulations that the University authorities made respecting students. The result of the ballot was then declared, which was as follows:—Mr. Watson to represent the summer entry, and Mr. Shaw to represent the winter entry. The President then called upon Mr. S. Wilson Charles to read his paper on "Fractures of the Mandible," which proved a very instructive paper. The following members took part in the ensuing discussion: The President, Messrs. Bradnam, Ruck, Stuart, and F. S. Glover.

PAPER BY MR. SNOW ON DENTAL MECHANICS.

On Friday, November 19th, a large number of members gathered to hear Mr. Snow's paper. Casual communications were exhibited by Messrs. N. D. Clarke and J. A. W. Stuart. The President then asked Mr. Snow to read his paper, which proved to be most interesting. There were several instructive points in the paper. His tabulations were good, and he went briefly through the various methods of work in dental mechanics at present in use, the subject being too large to allow of much detail.

Mr. Snow dwelt for some time upon the advantages of anatomical articulation, and demonstrated by means of two diagrams. The diagrams were much appreciated. He also mentioned the advantages and disadvantages (principally the latter) of taking pupils into a dental hospital.

The subject was warmly discussed on the conclusion of the reading of the paper, and the following members spoke:—The President, Messrs. Hoby, Orton, Pomeroy, Lakeman, Shaw, Neft, Knox-Davies, J. A. W. Stuart, N. D. Clarke, S. Wilson Charles, and Norman Warner.

DR. HEWITT AND "THE ANÆSTHETIC BILL."

From the Dental Point of View.

One cannot take up a medical or dental journal just now without reading something about "legislation in regard to anæsthetics," so that a word or so here would perhaps be "in season." Legislation for the "administration of anæsthetics" is perhaps needed for the safety of the public.

This Anæsthetic Bill, which we hear has no chance of being passed, and which has largely been promoted by Dr. Hewitt, seems to have mainly been spoilt by Dr. Hewitt himself.

Dr. Hewitt wishes that the administration of anæsthetics should be placed in the hands of registered medical men, and those dentists who are registered before the Bill is passed. He says, that within the last two years practically all the examining bodies have come into line in the United Kingdom, and have made instruction in anæsthetics a necessary part of the medical curriculum, so that in future medical men will be fully instructed in the giving of anæsthetics. Quite so! All this is very nice; but is Dr. Hewitt not aware that the examining bodies have also "come into line" as regards dental education, and have made instruction in anæsthetics a necessary part of the dental curriculum, so that in future dental men also will be fully instructed in the administration of anæsthetics? "Anæsthetics" is dealt with in most of the classical surgery text-books, and is mentioned under the heading of "surgery" in syllabuses of various examining bodies; therefore we have a right to assume that "administering anæsthetics" is a branch of surgery, and the administering of dental anæsthetics a branch of dental surgery. This being the case, the dentist has every right to administer such anæsthetic, or sequence of anæsthetics, as he thinks necessary for the welfare of his patient.

For ourselves, if we were performing a dental operation which required a general anæsthetic, the following is the order of precedence of the anæsthetists whom we would desire to attend:—

Firstly, the person whose services are the most desirable is undoubtedly the professional anæsthetist, such as Dr. Hewitt himself.

Secondly, the operating surgeon, provided he is in the habit of administering anæsthetics. *Advantages*:—He is essentially a practical man, his work is manipulative, and he would be particularly adapted to tackle emergencies, being able, no doubt, to cope with a laryngotomy or tracheotomy far better than the professional anæsthetist.

Thirdly, another dental surgeon, providing he is in the habit of administering anæsthetics. *Advantages*:—He is essentially a practical man, his work being also manipulative. He is more used to manage a patient's mouth, and to manipulate the Mason's gag, etc. He would know what to do in case of emergency, and would do it. He could appreciate the dental operation, and would be in a position to generally assist the operator.

Lastly, the general practitioner. We understand that "up in the North of England and Scotland the average medical man has not had much

practice in administering ether, and does not care about doing so; *ether*, which is supposed to be the routine anæsthetic; and down in the South the teaching is, that chloroform should never be administered for dental operations; in fact, the average southern general practitioner is really frightened of it."

Whether this is so we cannot say. To quote the words of one of our Hospital staff anæsthetists, he says, about chloroform, "There is only one thing which is nearly as bad as administering an overdose of this drug, and that is, to be frightened of it."

Again, we hear from all sources that ignorance on the part of general practitioners all over the country in administering nitrous oxide is simply appalling.

Even in our small experience we have come across several medical men who are quite unfit to administer "gas." They either get the patient with too much clonic muscular spasm [pronounced jactitations], or get them nastily cyanosed; we have seen medical men completely spoil the dental operation at "the change over," not being able to manage the Fergusson's or Mason's gag, struggling with it, getting excited, and generally getting in the way; or they fail to get the patient properly anæsthetised, this latter being a serious thing, from the point of view of the dentist's reputation.

At a recent meeting of the North of England Odontological Society, held on October 21st, at Newcastle-upon-Tyne, the President of the Society, Mr. T. W. Morton, of Carlisle, stated, during his inaugural address, that out of twenty-five general practitioners in his town, he knew only three for certain that were able to give "gas." On the other hand, it would be only fair to say that there are many medical men who are quite useful and helpful in a "gas" case.

The medical student at Guy's has exceptional advantages, as the hospital has a larger dental department than any other General Hospital in London.

It seems to us inconceivable that Dr. Hewitt, the author of "Anæsthetics and their Administration" (which, by the way, as he states on the fly-leaf, is "A Manual for Medical and *Dental* Practitioners and Students") could promote a Bill which seems so inconsistent and prejudicial to the welfare and interests of the public.

The Wail of a New Dental.

October was the month I came
To Guy's to seek for dental fame,
And make there for myself a name
In manner optimistic.

Two months since then have now rolled by,
And I, alas, sit down and sigh,
"Oh, shall I ever qualify"?
My tone's now pessimistic.

To many lectures I have been,
And long words there I've heard and seen,
Why don't they tell one what they mean?
I'm not encyclopædic.

What is a Labyrinthodon?
I've never heard of Ganglion,
And why do Streptococci don
A character putrific?

If I "probationary" shirk,
And show up someone else's work,
I get pulled up with a jerk,
And malison terrific.

Dissecting has no charm for me,
And common-sense declines to see
Whatever use in dentistry
Are veins anastomotic.

My soul was once so full of hope,
But now at night I moan and mope,
I sometimes think I'll buy a rope,
Or swallow con. Sulphuric.

And when I've drunk the bitterest dregs,
With silver hair, and gouty legs,
E'en then I shan't be signed for "regs,"
Oh, vision catastrophic!

QUONDAM SPE IMPLETUS.

Obituary.

Archibald Rutlidge Henry,

L.D.S. Eng., Barrister-at-Law.

We regret to record the death of Mr. Archibald Rutlidge Henry, of Wellington Square, Hastings, at the early age of 38. The immediate cause of death was pneumonia, but for the past two or three years he had been threatened with lung trouble and in failing health, against which he had pluckily fought.

Henry joined Guy's in 1890 in the early days of its dental school, and there had a distinguished career, taking a certificate in Operative Dental Surgery, and holding the position of Student Demonstrator of Practical Dentistry. He showed more than average ability as a student, and being a man of strong character was respected and admired by his teachers, who foresaw that he would make a mark in the dental profession. Upon leaving the hospital he joined his father, who for years had practised at Hastings.

Henry's interest and work extended in many directions, and in his leisure hours he read for and was called to the Bar at the Inner Temple.

In private life he was a genial companion, a good linguist, an excellent musician, and a keen traveller.

He will long be remembered on account of the skill and thoroughness of his work, and his bright, cheery, upright and manly disposition.

Henry, alas! is gone, and prematurely; but his influence will be felt for many a day, whilst his loss will be regretted by his friends and patients, by whom he was much esteemed.

The Surgery of Subphrenic Abscess.

CLINICAL LECTURE BY Mr. FAGGE.

Gentlemen,—The subject I want to speak of to-day is suppuration in the neighbourhood of the lower surface of the diaphragm, which is nearly always a secondary inflammatory condition due to disease of one of the abdominal viscera.

Lying in Esther ward, under the care of Dr. Pitt, is a girl who has suffered from this condition; she is twenty-one years of age, and was operated upon by me in Miriam on November 11th, 1908, twenty hours after the onset of symptoms suggestive of perforation of a gastric ulcer. The hole in the stomach was sutured, and the abdomen closed without drainage. The Fowler position was adopted—she was so raised that the spinal column formed with the bed an angle of at least 45°: saline solution was infused per rectum to the extent of eight pints, and I think we may take it, as so large an infusion was required, that her general condition was grave. Six days after the operation, the Clinical made a note that suppuration was suspected, for she had continual pyrexia, and as both bases were dull up to the 9th rib, he suggested that she might have a subphrenic abscess. Nine days after the operation a small abscess pointed through the abdominal wound. The temperature still remained high, and she began to get diarrhœa—the bowels being moved five or six times a day: she also had loss of appetite, profuse perspiration, and lost flesh steadily: her pulse was 100 to 120, her respirations rose to over 30, and her leucocyte count was over 18,000. So it was decided to try to locate the pus by needling the right chest under an anæsthetic, but two or three hours before the time fixed for the operation she vomited up four ounces of foul-smelling chocolate-coloured pus, after which Dr. Hale White detected at the right base signs of an air-containing cavity; this gave a tympanitic note on percussion in the right axilla, below the 8th rib, and the coin sound characteristic of such a lesion. I believe that the spontaneous rupture of a subdiaphragmatic abscess into the alimentary canal is very uncommon: Dr. Hale White at the time remarked on its rarity, though in an address on subphrenic abscess delivered before the Surgical Section of the Royal Society of Medicine in January, 1907, the late Mr. Barnard collected seventy-six cases from the London Hospital statistics, and in this series there were twenty-three spontaneous ruptures, eight of them being into the stomach. We concluded in our case, somewhat arbitrarily, that the rupture was into the stomach, but it may have opened into the duodenum. After this spontaneous rupture the temperature fell, and in the vomited pus were found the streptococcus longus and the bacillus coli. But even then the improvement was not maintained; the temperature again rose to 101° and remained unsteady, and she was getting weaker and thinner. On December 14th a dome-shaped area of dulness on the right side, convex upwards, reaching in the right axilla to the 8th rib, was marked out. On December 20th, under an anæsthetic, the subphrenic region was thoroughly explored by opening up the old epigastric incision, but nothing abnormal was found. In order to investigate this region more completely, a portion of the right 8th rib in the axilla was resected, the pleura was opened and shut off, the diaphragm was incised, and that part of the peritoneal cavity which lies between the liver and the diaphragm was explored bimanually, one hand being passed into the abdomen and the other into the thoracic wound, but still nothing was found. From that date she steadily improved, though I do not think the exploratory operation had any beneficial influence, nor can I believe that it was due to three doses of antistreptococcic serum which were injected. She was discharged on January 13th. On March 10th she was readmitted on account of pain on the right side of the abdomen of a week's duration, with a temperature of 100·6°. On the next day Dr. Pitt found dulness extending up to the 5th rib on the right side in front, and to the 6th rib in the right axilla, and to the 8th rib at the angle of the right scapula. The X-rays showed no abnormality, and the leucocyte count was 12,000. The temperature fluctuated, but the tenderness in the loin for which she came in gradually increased, and became more definite below and in front of the tip of the last rib. Dr. Pitt then had no doubt that she had a residual abscess—in fact, an extra-peritoneal subphrenic abscess. I was asked to see her, but further operative interference was postponed, with the idea of allowing the pus to come nearer to the surface, so that its localisation might be more definite, and in order that a prolonged intermuscular exploratory operation might be avoided. On April 7th the leucocyte count was 35,000, and an extra-peritoneal residual abscess in the right loin containing curdy pus was opened and drained. The next day, April 8th, there was bile in the

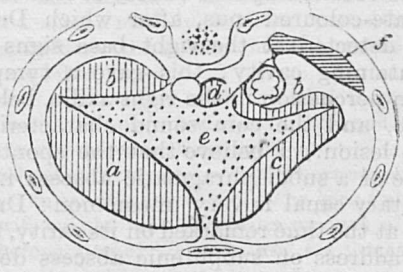
dressings, and on the 10th April—three days after the operation—there was a definite intestinal fistula. This was thought to lead into the second part of the duodenum, as all her food, only slightly altered, came through it. One may perhaps digress for a moment to consider what is the right treatment of such a patient suffering from a fistulous opening leading either into the stomach or the duodenum, and discharging all the food externally. At the time further operation for the cure of this intestinal fistula was seriously considered, but the decision was against this course, as I have always believed that an intestinal fistula will always heal spontaneously provided the natural passage remains patent; and, further, my experience has been that an attempt at suturing up an intestinal fistula is nearly always unsuccessful. This patient was anxious that something should be done, because she was getting no benefit from her food. She was put on rectal feeds for eighteen days, taking nothing except a little water by the mouth, and during that time she gained rather than lost flesh. The fistula then began to heal, and a second trial of mouth-feeding showed that food did not come through it, and the wound is now granulating slowly.

I will now read you the notes of another case. I saw in May, 1907, with Dr. W. G. Stewart, of Ware, a man æt. 40, who had suffered from pain and vomiting after meals for some years; he had no hæmatemesis and no melæna. On May 19th he was seized with great pain in the right hypochondrium with vomiting, and Dr. Stewart found a pleuritic rub over the right base. Eight days after the onset of this acute illness his right chest was explored, and two ounces of pus were found in the 8th space on the right side. The pulse was rapid and feeble, and he was cyanosed, and when I saw him on May 29th his temperature was very high; he had a hectic flush, the breathing was shallow and distinctly checked, as if it was painful; he was very tender in the epigastrium and in the right hypochondrium. The lower part of the right chest was bulging and dull up to the angle of the scapula; the liver dulness was not increased downwards; the air entry at the right base was impaired even up to the apex. As I had with me no instruments for the removal of part of a rib, I made a long incision over the 8th right intercostal space, immediately below the mark of the previous day's exploration, and after opening the pleura and shutting it off with gauze, incised the diaphragm and let out one and a half pints of very foul turbid fluid mixed with air; the largest rubber tube which would go between the ribs was fixed in for drainage. It was necessary later to resect a portion of rib below this incision, because the opening was not large enough for free drainage, although the first operation immediately relieved his cyanosis and pyrexia, and he rapidly ceased to suffer from the toxic effects of the large abscess. No doubt this subphrenic abscess was due to a chronic perforation of one of the hollow viscera, and the history suggests that it was due either to gastric or duodenal ulcer.

I operated upon a third case of the same nature four years ago for Dr. Fawcett, who has recorded it in a clinical lecture, published in the GAZETTE of July, 1905. A girl, æt. 25, who had had no previous attacks of abdominal pain, and had not suffered from indigestion or any symptoms of gastric disorder, was seized with abdominal pain and was admitted into Miriam with a pulse of 116, a temperature of 101°, and a pulse of 104. There was a distinct prominence in the right hypochondrium, dulness at the right base extending up to the 4th rib in front, and horizontally outwards into the axilla, involving the lower fifth of the scapula. To cut a long story short, a large abscess below the diaphragm was opened transpleurally through the right axilla. I have said there was no history in this case to indicate what the cause was, and there was also considerable doubt as to the exact localization of the abscess. I believe Dr. Fawcett regarded it as an hepatic abscess, but I must say I always regarded the abscess as subphrenic. I have quoted it to show that in many cases it is difficult to decide what may be the cause of such an abscess, and also that when an abscess in such a position has been opened it may be doubtful as to whether it is subphrenic or whether it is in the substance of the liver.

In the address on subphrenic abscess by Mr. Barnard, to which I have referred, he

FIG. 1.



Diagrammatic view of upper surface of liver, showing position of varieties of subphrenic abscesses lettered as in text (after Mr. Barnard's figure).

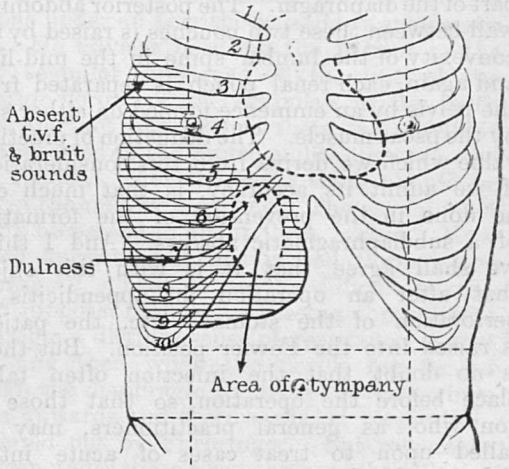
described six different positions of subphrenic infection, and though this subdivision is rather unnecessarily detailed in its anatomy, yet as it draws attention to the clinical variations of suppuration in these different positions, I will give you the salient points in his description.

(*a*) Right anterior intra-peritoneal abscess, bounded by the falciform ligament on the left side, by the diaphragm above and the right lobe of the liver below, extending very likely over the lower margin of the liver, and beyond its anterior border, and sometimes associated with suppuration in the peritoneal fossa below the inferior surface of the right lobe, which is known as the sub-hepatic pouch. Of twenty-seven such abscesses the cause was appendicitis in ten. liver abscess in seven, and perforation of a gastric or duodenal ulcer in six.

Clinically the cases of appendicular origin differ from those due to infection from gastric or duodenal perforation. In the former firm adhesions between the liver and diaphragm in front localize the pus above and behind the liver, and as the abscess enlarges it pushes up the diaphragm, giving rise to well-marked signs of compression at the right base. As owing to the intra-peritoneal adhesions the liver cannot descend, the abdominal signs are usually slight. In the gastric or duodenal type the liver is pushed upwards and backwards by exudation and gas, which form a well-limited abscess cavity bounded on the left by the bulging falciform ligament, on the right by the costal margin and below by peritoneal adhesions forming a broad band of dulness and tenderness extending from the umbilicus to the right costal margin. The gas contained within this bulging triangle will usually be evidenced by a tympanitic note and amphoric and coin sounds.*

The second variety (*b*) is that which is below the coronary ligament on the right side—right posterior intra-peritoneal—occupying the sub-hepatic pouch; this, as seen in the figure, passes across to the left side, filling up the narrow space between the liver and the anterior surface of the stomach; (*c*) the left anterior intra-peritoneal; and (*d*) the left posterior intra-peritoneal, which is an abscess in the lesser sac. Here pus passes through the foramen of Winslow, and it is usually due to rupture of one of the viscera bounding the lesser peritoneal sac; (*e*) and (*f*) are extra-peritoneal abscesses. In (*e*) the pus is limited by the two layers of the coronary ligament. There were nineteen such cases out of Barnard's total of seventy-six subphrenic abscesses, and in fifteen the primary cause was in the liver. The sixth variety (*f*) is an extra-peritoneal abscess in the region of the left kidney, and in the series at the London there were only four examples of this. Except from a theoretical standpoint, I do not think there is much value in this very minute subdivision, though it helps one to realise that suppuration about the diaphragm is a fairly common complication of many very different conditions.

Fig. 2.



* Since the delivery of this lecture I have operated on a good example of the gastric type of anterior right intraperitoneal subphrenic abscess, and the following is a brief abstract of Mr. H. R. Bastard's report of the case:—Edward C., æt. 44, was admitted under Dr. Hertz, on July 15th, for a tender swelling in the right hypochondrium and epigastrium. His temperature was 103°, pulse 100, respirations 40. There was no history to suggest the cause of the swelling. There was obvious prominence of the right lower ribs, and the swelling extended into the right hypochondrium and epigastrium, the whole abdomen was rigid and the swollen area was acutely tender. On percussion this area (see Fig. 2) was dull except for a central oval space of tympany over which a succession splash was detected; there was no coin sound; the resonant area altered slightly when he was turned over on to the right side. Dulness extended up into the right axilla and behind as far as the angle of the scapula; over the dull area t.v.f. was absent and air entry was impaired above and absent below the 4th rib. A vertical incision was made through the right rectus into a gas-containing abscess cavity; an exploring needle inserted into the right 3rd intercostal space in the mid-axillary line drew off clear fluid, and after resection of a piece of the right 7th rib, the abscess was opened behind trans-pleurally and a wide long tube inserted from the anterior to the posterior wound. After eight weeks' drainage he was discharged well.

Causation—The collated records of 523 cases show that in 134 of these the subphrenic abscess was secondary to gastric disease, in 119 it was due to appendicitis, and in 78 it followed some disorder of the liver. It is rather surprising to me that in so large a percentage it was possible accurately to determine the cause. Subphrenic abscess in what Barnard described as his first four positions, is part of a general peritonitis, which localises itself in one of these positions, and so a definite encapsuled abscess results. Let us consider why, if a localized peritonitis results from appendicitis, pus tends to collect under the diaphragm. It is clear that in diseases of the liver or of the stomach, subphrenic abscess is more likely, because they are in direct contact with the diaphragm. The determination of pus under the diaphragm from an appendicular or other infection in the lower part of the abdomen has been attributed to the suction action of the diaphragm, by which the pus is drawn upwards into contact with its under surface, but a more probable explanation is that it is due to gravitation. When such people are ill they are commonly put to bed in the supine posture, and pus tends to collect either in the pelvis or in the two pouches which you know so well as the right and left renal pouches; these lie in contact with the lowest part of the diaphragm. The posterior abdominal wall between these two pouches is raised by the convexity of the lumbar spine in the mid-line, and again, each renal pouch is separated from the pelvis by an eminence formed on either side by the psoas muscle. The deduction of practical value which we derive from this consideration, if we admit its accuracy, is that much can be done in the prevention of the formation of a subdiaphragmatic abscess. And I think we shall agree that it is with this object that after an operation for appendicitis or perforation of the stomach, etc., the patient is raised into the Fowler position. But there is no doubt that the infection often takes place before the operation, so that those of you who, as general practitioners, may be called upon to treat cases of acute intra-abdominal inflammation in the earliest stages will do well to see that they adopt the semi-upright posture with the object of preventing infection of the subphrenic area. I have no doubt again that the surgeon who operates on such a case in the supine position on the operating table allows the patient to run a considerable risk. When there is peritonitis which may localise itself under the diaphragm, and so produce a subdiaphragmatic abscess, the right thing to do is to keep the patient before, during, and after the operation in the Fowler position. Each variety will have different characteristics and physical signs, but I have not time to go into these details, and after referring briefly to the general symptoms and physical signs of subphrenic suppuration, will give you some suggestions as to treatment.

The history usually suggests the cause, whether it be a history of indigestion or of a previous attack of appendicitis. And the characteristic thing about the onset is that in the intraperitoneal subphrenic abscesses (in the first, second, and third and fourth positions) it is acute, while in the extra-peritoneal varieties it is most insidious. The most characteristic symptom is pain referred to the site of the abscess, also vomiting and a certain amount of collapse, which are always more marked in the intra-peritoneal than in the extra-peritoneal type. Again, it is common to have one's attention drawn to that typical state of the patient which surgeons so often meet with, and in the correct interpretation of which, personally, I have had so much difficulty, in which one feels sure that there is pus somewhere, and does not know where it is. This evidence of pus in some part of the body is the most characteristic feature in these cases, and elimination of other situations will often—as it did in my first case—locate it correctly. Barnard himself, who was a person of considerable humour, used to call it the "purulent complexion"—pale, anæmic and muddy; there is a dirty tongue, sweating, wasting and general weakness, loss of appetite, thirst, continued pyrexia, rapid pulse, diarrhœa, and occasionally rigors; and in all cases in which a blood count was made there was leucocytosis. Rigors in this condition are much rarer than in suppurative pylephlebitis, so that frequent rigors would be in favour of suppuration in the portal radicles; and rigors in subphrenic abscess, while rare, are of extremely bad prognosis. Out of the ten cases which Barnard recorded as having rigors, six died.

In fifty of these seventy-six cases there was an abdominal swelling, which, in thirty-three, was the abscess, and in fourteen others the tumour was formed by the liver pushed down or otherwise displaced by the abscess. The characteristic thing about this swelling is that it does not move on respiration, because it is usually fixed to the diaphragm by adhesions, and sometimes there may be tenderness and bulging over this swelling, which is nearly always dull on percussion. It is dull unless the

process has gone on so far as to produce gas in the cavity, when the area of dulness surrounds a small area of tympanitic resonance, over which the coin sound indicates the presence of gas lying in the most superficial portion of the cavity.

Some observers pay great attention to the presence of an area of dulness which is convex upwards as indicative of a collection of fluid under the diaphragm. This is true in an uncomplicated case, but it is clear that whenever there is secondary pleurisy the fluid above the diaphragm will produce dulness with a horizontal upper limit which will obscure the convex upper outline of the subphrenic abscess. The frequency of secondary involvement of the pleura can only be correctly estimated when a trans-pleural operation is carried out, or at an autopsy; it is interesting to note that in sixty operations undertaken by the trans-pleural method, Körte found the pleura implicated in forty.

If it is an accurate deduction from this observation that in two-thirds of the cases of subphrenic abscess there is also some pleural effusion, one must not be led away from the diagnosis of subphrenic suppuration, because the upper border of dulness is horizontal, and not convex upwards. I doubt whether this physical sign is of much practical value. For instance, in my first case the convex outline of the raised diaphragm was marked out on the side of the chest with silver nitrate, and yet no abscess was found after a very thorough exploration. And in another case on which I operated, it was demonstrated as an argument in favour of subphrenic abscess that the upper outline of the dulness was convex. This may have been so, but she had considerable fluid in the pleura, and though a subphrenic abscess was present, I doubt whether the physical signs were correctly interpreted. So, rather as a theoretical than a practical point, remember that, if uncomplicated, subphrenic abscess gives rise to an upper convex line of dulness, which, of course, it shares with all swellings immediately below the diaphragm, such as hepatic abscess.

The thoracic signs present in fifty-six out of Mr. Barnard's seventy-six cases were compression and inflammation of the base of the lung, *e.g.*, diminished resonance, deficient air entry, and deficient vocal fremitus. A pleuritic rub was uncommon. Sometimes there was tubular breathing and increased vocal resonance. Bulging of the right chest was also common, and there was usually deep tenderness; the X-rays, in the only case in which they were used, showed a dark shadow indicating an abscess.

One great point of interest to me in Mr. Barnard's paper was that it showed the extreme fallacy of the ordinary exploring needle. I have always looked upon the exploring needle as a hopeless instrument, and largely base this opinion upon my dealings with cerebral abscesses. I have never found a cerebral abscess with a needle, and have often missed abscesses in other parts of the body when using the needle. Recently I operated for Dr. Pitt upon a man in Stephen for a large suppurating hydatid of the liver. I feel quite sure my house-surgeon passed an exploring needle of the largest size into this abscess at least five times without drawing off any pus at all. My hand was in the abdominal cavity upon a bulging mass on the surface of the liver, and the needle was passed through the chest wall between two of my fingers, and yet we quite failed to find the abscess. As soon as a rib was excised, and the liver incised with a knife, a quantity of pus was evacuated, and the man has recently gone out. Barnard relates that in eighteen cases in which the aspirating needle was used without an anæsthetic, the abscess was not found in eleven. He insists that where needling is done it should be done under an anæsthetic, and in a systematic way. He advises needling the patient in the right scapular line (*i.e.*, in the line of the posterior border of the scapula), in the tenth space, and not finding pus there the needle is again inserted to the ninth, eighth, seventh, and sixth spaces. Then the same thing should be done in the mid-axillary line. The needle must usually be passed in about three inches. How do you know that it has passed through the diaphragm? That is not as difficult as one would suppose, because in passing through the diaphragm a distinct sense of resistance is met with, and then when the needle has passed through the diaphragm the barrel of the syringe moves upwards and downwards on respiration, as pointed out by Furbringer. But remember that even under those circumstances the fallacies attending the use of the exploring syringe are, for some reason, great. I think the usual reason is that the needles of most exploring syringes are not nearly big enough, though when the patient is under an anæsthetic it is possible to use a needle of the largest size.

The differential diagnosis of subphrenic abscess from other collections of pus below the diaphragm is very difficult; when a swelling in the right hypochondrium, associated with

general symptoms of suppuration, is present, hepatic abscess, either dysenteric or due to suppuration of a hydatid cyst, suppurative pylephlebitis or subphrenic abscess will all be possible diagnoses. With suppurative pylephlebitis there is jaundice in the later stages and usually uniform enlargement of the liver, without evidence of compression of the right base or of involvement of the pleura, yet there is no way in which you can distinguish between the two without an abdominal exploration, and you will remember that one of the commonest causes of subphrenic abscess is also the commonest cause of suppurative pylephlebitis, namely, appendicitis. The diagnosis from hepatic abscess will often remain uncertain until the abscess has been located by operation.

I do not want to go into any operative details, but there are one or two considerations in opening a subphrenic abscess which are of some general interest.

The position in which you will proceed to operate is determined largely by the result of the preliminary exploration with the needle, but when practicable the posterior transpleural route should be adopted; in this an incision in the line of the posterior border of the scapula is made over the rib below the space where the needle has indicated the presence of pus, and this is carried down to the 7th, 8th, 9th, or 10th ribs as the case may be. The pleura is opened and the diaphragm is sewn to the intercostal muscles, so as to shut off the pleural cavity. The needle is again inserted through the diaphragm, and on again locating the abscess the diaphragm is incised. By this means, in most cases, infection of the pleura will be avoided, for infection of the pleura and a subsequent empyæma is the chief risk of such operation.

When the swelling projects in the epigastrium and exploration with a needle has failed to reach the abscess from behind, it is best to go through the anterior abdominal wall well within the area of dulness. If the general peritoneal cavity is opened, it must be sutured or packed off before the abscess is opened, and whenever possible a counter-puncture through the loin on one or other side should be made for the passage of a large rubber tube to ensure free drainage of the cavity.

The subsequent treatment is the treatment of every other abdominal case, and it is always well to keep the patient well propped up in bed in the Fowler position. The abscess cavity may be daily irrigated with hydrogen peroxide solution (10 vols.), and where it is dependent its contents aspirated with a tube and syringe. Maydl's statistics from seventy-four cases operated upon up to the year 1894 showed a mortality of 48 per cent., and Perutz, in a series of 105 cases between 1894 and 1904, showed 26 per cent. of deaths, whereas the operation results of the series reported by Barnard showed a mortality of thirty-seven per cent. Barnard himself operated on twenty-one of these cases with a mortality of 19 per cent., and was of opinion that with improved knowledge and technique the mortality should be even lower than this.

Guy's Physiological Society.

A PAPER entitled "Recent Advances in the Study of Cerebral Localisation" was read before this society by Mr. W. Robinson, on Monday, Dec. 6th, Dr. Boycott taking the chair.

The author first dealt briefly with the history of brain research work, and with the older ideas of the action of the brain. He showed that the study proper of the cerebral cortex dated back only to 1870. Till then the brain was regarded as acting as a whole, and Flourens, and other investigators of that period, were convinced that when any part of the cortex was removed, the whole body suffered to an extent which varied as the extent of ablation. Improved technique, and the introduction of anæsthetics and antiseptics, had greatly improved the methods of study.

The next part of the paper was given to the consideration of the development and functional significance of the primary laminæ of the cortex, and the variations of these laminæ in different areas, according to the functions of each area. The author dealt specially with the outer or pyramidal cell layer. This layer, which is the latest in the cortex to develop, and which subserves our highest and most complicated nervous processes, often shows remarkable under-development or retrogression. The effect of such conditions on the conduct of life, society, and on the general character and ability of the individual was discussed.

Broca's area, and its relation to aphasia, was next reviewed, and the more modern theories of Pierre, Marie, Monakow, and others, which tend to refute Broca's statements, were dealt with. Marie and his supporters consider that aphasia is caused by loss of functional continuity between the various centres which together constitute the language mechanism, rather than by destruction of any special cortical centre.

Finally, the author, discussing some of the work done by Horsley for the last Linacre lecture, raised doubts as to whether the motor and sensory areas of the cortex are distinct or not. Horsley's experimental work tends to show that they do overlap to some extent.

Guy's Hospital Debating Society.

An impromptu debate was held on Saturday, Dec. 4th. Mr. Thompson, who occupied the chair, announced that the subject he had chosen would be, "That in the opinion of this House the strength of the British Empire chiefly depends now and in the future on her dominions and peoples beyond the seas."

Mr. Schlesinger, called upon to propose the motion, said that a nation depended to a large extent on things imported, just as an individual was dependent, physically and mentally, on food and thought from without. The Colonies, by virtue of their youthful enthusiasm, tended to provide newer ideas, which were spread with advantage amongst the conservative thoughts of the mother country. We largely relied on the Colonies for our food supply. The tie of friendship with foreign nations might at any time be broken. Many of the finest specimens of our race, many of the most original ideas, emanated from the Colonies. England was within sight of death; the centre of the Empire would soon be transferred to one of these Colonies, which, on that account, should make every effort to acquire a dignity and breadth of thought such as would befit a son about to receive so great a responsibility from his dying parent. Colonial boisterousness should therefore be put aside in the effort to establish a long line of sober and eminent men prepared to accept so great an inheritance. The Colonies formed our main strength at the present time, but in the future they would form the Empire itself.

Mr. Marshall, opposing the motion, said that there was a great tendency for our oversea dominions to part from us. The United States of America had set an example which would be followed by England's other sons. There was no true bond between the inhabitants of different Colonies; in many cases they actually hated one another. Desperate efforts were required to keep the Empire together. The colonial governments held views which in England were held by a minority only. They rightly considered home politics of greater importance than a foreign policy leading to wars of aggrandisement. The idea of Empire was to them unnecessary, and even distasteful.

Mr. Killpack seconded the motion. Whether or not the colonials had any love for England did not concern the subject under discussion. The State had a right to call upon its offspring for maintenance; at the same time it needed support in its old age. On the one hand, the children must bridle their lower tendencies at the bidding of duty, remembering the parent's loving care in their younger days; on the other hand, the parent, dependent on their support, must be prepared to submit to the inevitable slights of the young.

Mr. Passey seconded the opposition. A larger and more expensive fleet was necessary to protect the Colonies. They remained under our government merely to obtain the advantages of our protection. The Colonies were therefore a danger and a menace, and our interests were weakened by their retention.

Mr. Neft said it had been stated that economic needs required the retention of our Colonies. Friendly relationship with other countries was more desirable than the maintenance of a large Empire. All our strength was necessary to develop natural resources to the full. There was no place in our lives for conquest if such were our aim.

Mr. Bevan Brown said the Colonies were doubtless breaking away; they were preparing their own fleets, and would shortly be able to dispense with England's protection, which benefit alone they required and obtained from our Government at the present time. The Colonies were an impediment to England, as England was to the Colonies.

Mr. Webb agreed with the proposer in that children often had original views, but did not consider that these views were, as a rule, practicable. The downfall of the Grecian and Roman Empires might be attributed to the extension of the colonial system.

Mr. George said Colonies were necessary to dispose of superfluous population; they formed the bonds which would strengthen the Empire.

Mr. Godding said foreign nations refused to be friendly, as the Hague Conference had shown. Hence England was dependent on her Colonies.

Mr. Bennett said the Empire depended principally on England herself, and only to a slight extent on the Colonies. The downfall of Greece and Rome was attributable to the decay of the centre. The Empire was a body rather than a family, with England as the heart and brain, and the Colonies merely as the limbs.

Mr. Martyn Lobb said co-operation was essential under present conditions. England had a right to demand co-operation and help from her Colonies.

Mr. Thompson, who temporarily vacated the chair, said the strength of the Empire depended chiefly on that of its men. The colonials were undoubtedly better men, as instanced by their superiority in sport. England had lost her courage. Although the heart was necessary for life, the lungs—Australia's airy plains—were also essential. We could only hope to advance by pugnacity. The justice which had been referred to might be bought at the expense of our independence.

Mr. Ryle agreed that we were subject to physical deterioration, but intellect might claim consideration. Warlike nations and colonials were less intellectual, if possessed of greater physical strength. If the Colonies were our sons, were not foreign nations our brothers and sisters? Our ideal should be, not a British Empire, but an Empire of the World.

Mr. Mullally said the Colonies had been of no assistance in the past. Exuberance of spirits rather than patriotism had driven them to the Boer War. The navies which they were preparing were planned for their own defence, not for that of the Empire. There was no reason why they should be drawn into the vortex of European politics. Many of the Colonials would derive

greater benefit from an alliance with the United States than with England.

Messrs. Marshall and Schlesinger having replied, the House divided. Result:—For, 16; against, 11.

The Principle of Reaction in Skin Diseases as Exemplified in Everyday Practice.*

BY G. NORMAN MEACHEN, M.D., B.S., M.R.C.P.

Gentlemen,—If the old axiom that "to every action there is an equal and contrary reaction" be modified thus, "to every stimulus, whether from within or from without, there is a corresponding though variable reaction," we have, in the case of the skin and its disorders, a very fair statement of what actually occurs, first, as an expression of disease, and, secondly, as the result of treatment. My subject, therefore, naturally divides itself into two parts.

Reaction as an Expression of Disease.

(After referring to the fact that the confusion which still existed with regard to dermatological nomenclature was, to a great extent, responsible for a widespread idea that the study of skin diseases was less attractive than most other branches of medical science, the lecturer then proceeded.)

Take, for example, true urticaria vulgaris as a type of definite cutaneous reaction which well illustrates the law of Brocq, that "the same class of eruption can be produced by causes which are sometimes the most diverse." Thus, urticaria may be excited be eating shellfish, by handling a hairy caterpillar, or by the internal rupture of an hydatid cyst. In some cases, no doubt, the stimulus is a toxin derived from the alimentary canal which, becoming absorbed into the blood-stream, sets up an irritation in the cutaneous capillaries, resulting in the appearance of the rash. This is well seen in the eruption, often of an urticarial nature, which sometimes follows the administration of a purgative enema. The investigations of Still, Bolton and myself into this matter tend to show that such "enema-rashes" are true reactions on the part of the skin to an intestinal toxin liberated from the bowels by the action of the soap employed in the preparation of the enema. Such reaction is greatly influenced by the condition of the vaso-motor system which, in true urticaria, is distinctly lacking in tone.

Drug-rashes of every description may be regarded as instances of a pure reaction on the part of the skin to a stimulus the nature of which is definitely known. These affections, together with many of the occupation-dermatoses, form a not inconsiderable part of dermatological practice. The number of drugs that are offenders in this respect is very great, embracing not only such old friends as arsenic, the iodides, the bromides, copaiba, opium, and quinine—to mention a few of the commoner ones—but also the newer synthetic remedies that now flood the therapeutic market, such as mesotan and veronal. The wonder is that more patients do not suffer in this way, especially when we think of the growth of the self-drugging habit and of the evils that accrue from the prescribing chemist. If anyone is interested in the question of workmen's compensation and needs a "bed-book," he cannot do better than have on hand that excellent monograph by Prince Morrow on "Drug Eruptions," to be found in vol. cxliii. of the New Sydenham Society's Transactions. A point of interest in this connection is that a person may be engaged in an occupation which involves the handling of some substance, whether it be turpentine, sugar, or some irritating plant, known to produce a rash, for years, and pass unscathed through his daily ordeal. One day, however, he falls a victim, after having boasted, perhaps, of his previous immunity. The explanation, I think, can only lie in the fact that the substance in question may have proved exceptionally irritating, or that the powers of resistance of the cutaneous tissues have been lowered through some local or constitutional cause. (The case of a gardener was here narrated who had been in the habit of training and cutting down a fine specimen of the *Primula obconica* regularly for many years without suffering any injury therefrom. On one particular occasion he did succumb to the noxious influences of the plant, resulting in a violent outbreak of an eczematous dermatitis. This was ascribed to the fact that he had been run down in health of late. Another case, also of a gardener, was related, who was thought by his employer to be suffering from a similar affection, but who, on examination, was found to have lupus erythematosus, another type of cutaneous reaction!)

We cannot do better than turn to eczema to study the principle of reaction as an expression of disease. And here I would limit the term strictly to a true catarrhal dermatitis, characterised by an erythema, accompanied by exudation, the appearance of papules, vesicles, pustules, and crust-formation—in fact, the old definition of the disease as given by Tilbury Fox, which has never yet been improved. The term "dermatitis," acute or chronic, is better than eczema in many ways, for the latter word is now so often used in a loose manner to describe many different cutaneous disorders. Acute dermatitis, then, in its various phases may be produced by many different stimuli, whether from within or from without the body, a fact so ably brought out by Dr. A. J. Harrison, of Bristol, in his Long Fox Lecture of 1906. Hereby is illustrated once more Brocq's law above mentioned. As a cutaneous reaction we meet with it from extremes of temperature, from streptococcal infection, from the direct action of irritants, or in association with the gouty state, to name some of the more common stimuli. The papulo-vesicular type of the disease, for instance, produced by contact with some irritating substance, differs in no essential detail from that due to

* Abstract of an address delivered before the Brixton Medical Society on November 18th, 1909.

some unknown cause. The modern conception of eczema, or dermatitis, is that the different morbid phases hitherto comprehended under these terms are to be regarded as the expression of varying degrees of cutaneous reaction to stimuli of the most diverse character. The rôle played by vaccination as a stimulus for cutaneous disorders of an eczematous type is, of course, largely exaggerated by the laity. The introduction of the lymph, even under aseptic conditions, may supply the necessary stimulus for an attack just as much as any other slight interference of function may in a young infant, but I would not say that vaccination is a cause of eczema. Generally speaking, a pre-existing dermatitis is unfavourably influenced by vaccination, so that it is wise to postpone this until the skin is quite clear.

Other skin diseases which may be looked upon as "cutaneous reactions" to some stimulus are lichen planus, psoriasis, urticaria papulosa (lichen urticatus), most of the erythemata, and the symptom-complex known as pruritus.

REACTION AS THE RESULT OF TREATMENT.

It is a common-place that one of the chief aims of treatment in many general disorders, such as pneumonia and certain of the exanthemata, is to get the skin to "react," by which, of course, is meant an increased activity of the sweat-glands and of the cutaneous circulation tending to relieve somewhat the congestion of the deeper organs. I do not employ the term exactly in this sense, but rather to convey the impression that the skin is to be its own healer, *i.e.*, the stimuli that we apply to it in the shape of lotions, ointments, etc., must be so nicely graded that the response thereto at any given period of the disease shall be just sufficient to help the cutaneous tissues one step onward towards ultimate cure. A practical knowledge of cutaneous pharmacology is, therefore, a highly essential part of our therapeutic armament.

One of the golden rules in the treatment of skin diseases is "In acute cases soothe, and in chronic, stimulate." This may be taken to read thus: "Immediately the acute stage is passed, a weak stimulating or reducing application should be used."

Stimulating drugs applied externally may be classified as follows:—

1. *Reducing or alterative substances.*—These relieve congestion, tend to arrest the growth of germs, favour the normal keratinisation of the epidermis, and relieve pruritus. The action of these remedies depends chiefly upon the strength in which they are employed. Too large a dose means over-stimulation and consequent irritation, with the result that too great a reaction is produced. This means delay while a return is made to a weaker remedy. These effects are especially noticeable in the treatment of eczema, where one has to be continually upon the watch to note the manner in which the cutaneous tissues behave towards the various medicaments used. It has, indeed, been rightly said that the successful management of a case of this nature is the very touch-stone of dermatological practice. Another golden rule is, "Where two ointments will cure a skin affection, select the weaker." This is especially applicable in the skin disorders of childhood.

We may group the reducing substances in the following manner:—

a. Those of a weak action. Dermatol (subgallate of bismuth), ichthyol, thiol, thigenol, sulphur, resorcin—all in weak strength. These calm irritation and favour epithelial regeneration.

b. Those of more pronounced effect. Coal-tar, oil of cade, anthrasol, etc.

c. Those more powerful still. Pyrogallol, and its derivatives, lenigallol and eugallol, silver nitrate, carbolic acid, chrysarobin.

2. *Keratolytics*, which dissolve or destroy the horny layer of the epidermis. Soft soap (potash soaps), salicylic acid, resorcin (in large doses).

3. *Exfoliating remedies.* — All the above (class 2) in large doses, barium salts.

Tar is nearly always contra-indicated in acute weeping dermatitis (eczema madidans), but for the resolution of old chronic infiltrated patches of eczema it is a sovereign remedy. Similarly, the judicious painting all over of a chronic eczema patch, say, upon the hands with pure carbolic acid, may just give the impetus to the occurrence of a favourable reaction on the part of the skin, after which a soothing application, such as Lassar's paste, can then be applied. The smoothness of surface obtainable after the use of pyrogallol derivatives externally in cases of dermatitis is noteworthy.

(The various other external agents capable of causing the desired amount of reaction in the skin were then mentioned, including the Finsen light, X-rays, liquid air, Bier's local hyperæmia, radium, and carbonic acid snow, their uses and limitations being pointed out.)

Of internal remedies which exercise a specific action upon the skin and set up a reaction in its tissues, arsenic, I suppose, still holds the first place. The older school of dermatologists placed great faith in the drug, and, in fact, even nowadays it would be considered little short of heresy to omit to mention the use of arsenic for psoriasis at any final examination in medicine. Nevertheless, it must be admitted that arsenic is now given much less frequently, and, indeed, the number of cutaneous affections for which it is really a specific may be counted upon the fingers of one hand. It is of real value in lichen planus, pemphigus, dermatitis herpetiformis, and occasionally in psoriasis, and it often requires to be pushed to its physiological effects before an appreciable influence is exerted upon the skin. In most cases of acute dermatitis or eczema it generally does more harm than good, and even in a psoriasis, when the lesions are rapidly spreading, it seldom proves of benefit. Of the modern substitutes for arsenic, the cacodylates, atoxyl, etc., it is doubtful whether these substances possess any therapeutic properties not to be found in arsenic itself.

(The action of tuberculin and thyroid extract were then reviewed in closing the address, which was followed by a discussion.)

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Proposed Museum of Hospital Antiquities.

Sir,—I am glad to see among your editorial articles the suggestion for a proper collection of hospital antiquities having a general historical interest.

When the old museum was pulled down, I well remember wandering in there and finding several most interesting relics among the dust and cobwebs, walls around them partially demolished, and, if I remember rightly, no doors to guard them. It is fortunate they were not stolen.

I recollect that, with mistaken zeal, I asked Hunt, the museum attendant, to let me put them in a safe place for the time being, which he did. Alas! I say alas, because some weeks later I was accused of having *stolen* the things, and ordered peremptorily to return them, which I humbly did. I remember laughing over the incident afterwards, with, I think, Dr. Eason.

But I am getting to be an antiquity myself, and I am glad to think that in the present pushful age a little quiet corner is likely to be reserved to remind those of us, who give pause, that after all the majority of us are not so much superior to our ancestors as perhaps we thought a few years ago.—Yours, etc.,

Sevenoaks, GERALD SICHEL.
28th November, 1909.

Pass List.

University of London.

Third (M.B., B.S.) Examination for Medical Degrees.

Honours.

*E. M. A. Duvivier. | *G. H. Peall.

* Distinguished in Surgery.

Pass.

M. E. Ball. | R. C. V. Edsall.
R. P. Ballard. | A. A. Greenwood.
M. R. Dobson. | E. L. W. Mandel.

Group I.

W. H. Catto. | E. L. Elliott.

Group II.

T. Stansfield.

University of Cambridge.

Degree of Doctor in Medicine Conferred.

G. H. K. Macalister, John's.

Some very Superficial Fascia.

A Heartless Dissector.

This person here beneath my knife,
Being an ill-tempered wife,
Cursed her husband, who, of course,
Slogged her with terrific force.
Paupers should not quarrel so,
The orbit's ruined by the blow!

Stanzas from the Dissector's Rubaiyat.

Cutting through skin and fatty fascia fell
With nostrils tortured by the winding smell,
I often wonder what the Guardians buy
One half so nasty as the stuff they sell.

Myself, when young, did angrily frequent
Nine o'clock lectures whither we were sent
For guidance, but at ten past nine myself
Came out by the same door as in I went.

Dreaming when Hughes' left hand was on the skull
I heard a voice say softly through the lull,
"Oh for a Scotch and soda in my hand!
Whisky alone could make this place less dull!"

Student of Physiology.

Seeking for some new effect
I am going to vivisect
Aunt Louisa's Chow and Manx.
(No! no anæsthetic thanks!)
How they'll scream beneath my knife!
This is quite the Sporting Life!

Appointments.

Civil.

Howard, R., M.A., M.D., B.Ch. Oxon., has been appointed Craggs Investigator, School of Tropical Medicine, London.

Military.

Captain C. H. Denyer, R.A.M.C., has been transferred from the 8th (Lucknow) Division to the 5th (Mhow) Division and appointed Specialist in Dermatology.

Territorial Force.

Surgeon-Captain J. W. Nicholson, 5th Battalion Lincolnshire Regiment, is promoted to be Surgeon-Major.

Lieutenant G. L. L. Lawson, 3rd London (City of London) Field Ambulance, is promoted to be Captain.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Diseases of the Stomach. By S. H. Habershon, M.A., M.D., F.R.C.P. (Cassell & Co.) 9s. net.

This book has apparently been primarily written in pious memory of our former Senior Physician, Dr. S. O. Habershon. It deals comprehensively with the subject, and purposes to supply the needs of practitioners and students. It reproduces in detail what the text-books of medicine give in outline, and does this efficiently. It is equipped with a good index, a moderate list of references, and an ample supply of illustrations; the illustrations are of varying merit, some of those illustrating the anatomy being very clear indeed; some of the highly coloured ones, *e.g.*, those illustrating the histology of carcinoma of the stomach, very vague.

The book cannot, however, be considered a very serious effort to give us the most recent information on the subject. If Dr. Habershon had more studiously read the recent literature, he could not have written "this method of examination (Röntgen Rays) has not proved of much service in diagnosis." In his chapter on the treatment of gastric ulcer he makes no mention of either the Lenhartz treatment, nor of the use of olive oil in the dietary of the patient. He subjects the sufferer to a prolonged course of starvation and of rectal alimentation, from which the ulcer can derive little benefit, and the patient little comfort. In a chapter on duodenal ulcer he makes no mention of the work of the surgeons, Moynihan and others, who have recently made important contributions to our knowledge of the diagnosis and the medical treatment of this common ailment.

The chapter dealing with the anatomy of the stomach is good so far as it goes, but the X-rays have thrown much valuable light on this, and a chapter which deals with the anatomy and the movements of the stomach without referring to the works of Cannon, Holzknecht, Béclere, and the work done at Guy's, had better not have been written at all.

The author is fond of making or repeating statements without giving his evidence for them. Dogmatic statements are of interest, but of no scientific value. Is it true that "alcohol is a powerful stimulant to cerebral and nervous action, and to the action of the heart, and that it is a most potent and valuable drug in all cases of heart failure?" that "percussion is a fairly accurate method of examination" of the size and shape of the stomach? that "bile is a natural laxative, and when its secretion is diminished constipation is a frequent result?" Is it true that "smoking before a meal induces dilatation of the stomach, and at any time relaxation of the muscular fibres of stomach and intestines?" if so, it is difficult to see how "this relaxation is the cause why tobacco smoking produces an action of the bowels after breakfast."

Classification of diseases of the stomach is difficult, and in this book not altogether successful.

The book is well got up and easy to read and understand, but does not contribute anything original, and is not very up to date.

Dissections Illustrated. By C. Gordon Brodie, F.R.C.S. 73 coloured plates. (Whitaker & Co.) Price, 15s. net.

The author explains in the preface to this work that it will chiefly be of use to those who are revising their anatomy, either for the purposes of examination or for operative surgery. The plates, which are seventy-three in number, are beautifully drawn and reproduced. Nor must the skill and care which has been devoted to the necessary dissections be forgotten. To the junior student these plates, like the wax models in the museum, show what can be done in the way of dissecting the various parts of the body.

Anatomy should always be learnt by dissection first, aided by such plates as these, and it is quite a question for discussion as to whether our present manuals and books are not far too good, and cater much more for the lazy student than they should do. Many of our excellent books of anatomy require little effort to read and none to understand, and we are quite sure that many more people get through their examinations on practically pure book work now than formerly.

Such a state of affairs certainly should not exist, and we therefore welcome a reprint of this book, because, in our opinion, it will give the student who is working for the first time, or revising, an insight into the exact relations of various structures which no written description can do so thoroughly.

The plates are, with hardly an exception, most correct. They are not too much encumbered with unnecessary detail. We should like to see such books more carefully studied than they are. To the young surgeon, who has not much opportunity for actual dissection, the plates should certainly be familiar.

The Relation of Medicine to Philosophy. By R. O. Moon, M.A., M.D. Oxon., F.R.C.P. (Longmans, Green & Co.) Price 4s. 6d. net.

Dr. Moon in this little volume has traced the evolution of the various schools of medicine and their relation to contemporary philosophies from the time of the Greeks onwards. He shows how, from Hippocrates to Hahnemann, the constant endeavour of medical writers was directed to the foundation of systems; starting from some conception in philosophy, an attempt was made to unify all medical knowledge in a stereotyped system. Each writer, in introducing his system, abused and demolished his predecessors'. Meanwhile, a body of ascertained fact was gradually being built up from Nature. More and more, specialism became necessary, and on medicine this disintegrating process had full effect. In the nineteenth century medicine became so absorbed in the

investigation of the actual facts of disease and their causes and treatment that she got out of touch with philosophy, sought no longer for ultimate and universal causes, and desired no longer to found a system.

This is the position at the beginning of the twentieth century. Dr. Moon, while he admits that the tendency to the divorce of medicine and philosophy has been of the greatest advantage to medicine in the past, thinks that the time has now arrived when she, with the sister sciences, should be brought to a focus, and so into touch with philosophy once more. He would like to see some such unifying process in Natural Science as Wagner effected for Art by bringing the sister arts of music, poetry, painting, and dancing to subserve a unity in his musical dramas. In this way, Dr. Moon thinks, medicine might become a true science of life, in accordance with the Greek ideal, but infinitely enriched by the discoveries of later ages, and so enabled to direct the intellectual and moral, as well as the physical life of man.

With this thesis in view, Dr. Moon has written a most readable and illuminating volume. It is a pity that the congested state of the medical curriculum does not permit the history of medicine to find a place there; yet it could not but be of educational value. Things being as they are, we cannot do better than recommend the student to read this small volume, which is not in any way a complete history of medicine, but rather a bird's-eye view of it.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Specimens, Letters, and Postal Orders should be addressed to the MANAGER, Gazette Office, Guy's Hospital.

Papers by Guy's Men.

A. Percy Allan, M.D. Lond. Infant Prodigies. *The General Practitioner*, November 6th, 1909.

Hugh Barber, M.D.Lond. A Case of Sporadic Elephantiasis.—*The Lancet*, November 20th, 1909.

T. E. Ashdown Carr, M.B., B.S. Lond., L.R.C.P., M.R.C.S. A Case of Hole in Optic Disc.—*The Ophthalmoscope*, November, 1909.

H. T. Hicks, F.R.C.S. Eng. A Short Criticism of the So-called "Rational Puerperium."—*British Medical Journal*, November 20th, 1909.

W. Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng. Civilisation in Relation to the Abdominal Viscera, with Remarks on the Corset.—*The Lancet*, November 13th, 1909.

William Sheen, M.S. Lond., F.R.C.S. Eng. Case of Simultaneous Fracture of the Patellæ.—*The Lancet*, November 13th, 1909.

Thos. G. Stevens, M.D., B.S. Lond., F.R.C.S. Eng., M.R.C.P. Lond. Some of the Difficulties and Dangers met with in Connection with Uterine Fibroids.—*The Clinical Journal*, November 24th, 1909.

F. J. Steward, M.S. Lond., F.R.C.S. Eng. A Clinical Lecture on Stricture of the Intestine.—*The Clinical Journal*, November 24th, 1909.

F. Cook, B.Sc.; E. G. Schlesinger, B.Sc.; A. H. Todd, B.Sc. Some Observations on a Twenty-four hours' Walking Race.—*British Medical Journal*, 27th November, 1909.

Sir Henry Morris, Bart., M.A., F.R.C.S. Eng. An Address entitled Looking Back; A Glance from Empiricism to Experiment, from Superstition to Research.—*The Lancet*, 4th December, 1909.

Dr. W. Hale White (with Mr. J. P. Lockhart Mummery and Dr. H. Bruce-Porter). A Paper on a Case of Pneumococcal Colitis with Hyperexia and severe Hæmorrhage treated by Appendicostomy.—*The Lancet*, 27th November, 1909.

Fund for Mr. A. A. Clark.

We acknowledge the following contributions to this fund:—

	£	s.	d.
Mr. Cosmo Bonsor	1	1	0
Anonymous	1	0	0

PERIODICALS RECEIVED.—The Hospital; The Clinical Journal; Nursing Times; St. Bartholomew's Hospital Journal; London Hospital Gazette; St. Thomas' Hospital Gazette; Polyclinic; U.C.L. Union Magazine; The Prescriber; South African Medical Record; New York State Journal of Medicine.

Sport.

Rugby Football.

GUY'S v. STREATHAM.

Played at Honor Oak Park on Saturday, November 27th, and ending, after a close and interesting game, in a win for the hospital by 2 goals (10 points) to nil. The home side had to take the field with several substitutes. For a variety of reasons J. P. Jones, Lee, Lacey, Archer, Crook, Roberts, and Hind were all away. With four such forwards absent there was not unnaturally a lack of vim about the work of the pack, and to add to the misfortunes of the hospital the referee seemed to have a particular wish that Stranach should not move his feet one way or the other after a scrum had been formed, almost the least movement, spontaneous or otherwise, on the part of that forward brought a penalty for "foot-up." Several times Streatham worked down, but all their attacking at first was confined to their front rank, who generally kicked too far, enabling Harkness to clear well several times. On each occasion his touch-finding was good, the length excellent, and accuracy certain. Once, in clearing, he ran cleverly, and finished some neat work with a pass to Stringer, who reached Streatham's twenty-five before being grassed. A very even first half ended with the game pointless.

On resuming, Streatham pressed, and were distinctly dangerous for a time. One round of passing was particularly neat, but Hazard on the extreme left was pushed into touch by Stokes. Soon after Phillips burst away for the visitors on the right touch-line, and, evading several hospital men, got away to the corner flag before Pritchard accounted for him. Two or three scrums followed. Guy's defended soundly, and then the pressure ended with a futile drop at goal on the part of Leigh-Smith. Mullins roused his men, and putting more life into their work Guy's assumed the upper hand. Clarke went outside, Stringer coming to the centre position and getting some play, as for a time he had been neglected. Several good efforts on his part were, however, frustrated. Once Pritchard got over the line, but lost the ball in falling for a try. However, just before the end, Monaghan deceived the opposition by diving round the scrum and sending in Medlock, who swerved cleverly past Becker with the first try, and later capital passing enabled Stokes to score the second. Splendid kicks by Stokes converted both efforts, and Guy's won by the margin stated above. Team:—

GUY'S.—A. H. Harkness (back); L. B. Stringer, F. T. Clarke, C. B. Pritchard, A. L. Stokes (three-quarters); C. H. Medlock, P. J. F. Monaghan (half-backs); H. R. Mullins, W. E. Williams, H. Hoby, A. V. Moberly, W. S. Stranach, V. Glendining, T. D. Stout, W. Smythe (forwards).

Referee: Mr. Andrews.

REMARKS.—Guy's should have done better, but when one remembers the number of substitutes out it perhaps accounts for the low score. Harkness was very good in Lacey's place. Clarke has played distinctly better. Neither Stokes nor Stringer was made anything like full use of. Both halves played very well, Medlock's try being the result of their good combination. The forwards were slack during the first part, but in the second half found their proper game.

GUY'S v. NORTHAMPTON.

With a weakened side and the wretched weather which prevailed at Northampton last Saturday, Guy's entered the field under the most depressing conditions. Roberts, Crook, Stranach and Stokes were away, while Northampton had to do without their International player, Mobbs. The Hospital kicked off, and after some equal exchanges play settled down in midfield, and several scrums were formed. It was thus early evident that Northampton held the upper hand at half-back, more especially at the base of the scrum, where Williamson was particularly smart. Guy's forwards put in some good footwork, but Luyt picked up and relieved to half way. Twice Lacey was compelled to run to touch. Then Lee and Stringer got going on the left; a pass inwards left the ball with Lee, who unluckily slipped up when nicely placed. Again the Guy's threes attacked, but Read averted danger. Twice in succession Luyt broke away, but nothing came of his efforts, and Guy's dribbled back to near the 25 yard line. Just after, however, Williamson got away, and rushing tactics on Northampton's part found the ball past Lacey, White dashing up and scoring an unconverted try for the home side. These were all the points in the first half, so that at the interval Guy's were three points down.

Welch re-started the game, and a good kick on Harrison's part took play to the hospital end. Here Luyt was really dangerous, but he knocked on, however, at the moment when a score looked imminent. Lacey next accounted for Harrison, and the game proceeded with the snow coming down most uncomfortably. Lee made a good individual effort, but the Guy's threes passed a little too slowly to be really effective. Once more Lacey foiled Harrison, and just after saved brilliantly with Beaseley almost on him. Play after this was of the give-and-take order, both sides attacking in turn, and not till almost the end of the game did Northampton score again. Good passing by their halves and threes ended by Cook gaining possession and racing over with a try, which was not converted, leaving the score 2 tries, or 6 points, to Northampton; Guy's Hospital nil. Team:—

GUY'S.—G. E. W. Lacey (back); L. B. Stringer, H. Lee, J. P. Jones, A. L. Stokes (three-quarters); C. H. Medlock, P. J. Monaghan (halves); H. R. Mullins, H. Archer, W. E. Williams, H. Hoby, G. R. Hind, A. V. Moberly, V. Glendining, T. D. Stout (forwards).

REMARKS.—Lacey at full back played a very fine game. The three-quarters, if a little on the slow side, did many good things, and the general combination of the line was

above the average. Sampson came out of the game with distinct credit. Monaghan was outwitted by his *vis-à-vis*, and Medlock suffered in consequence. The forwards took a long time to settle down, and as in the match of the previous Saturday, left it very late before they showed their true form.

Association Football.

GUY'S HOSPITAL v. OLD CARTHUSIANS.

This match was played at Honor Oak Park on November 13th, and resulted in a loss for the hospital by one goal to nil. There is very little to be said about the game, both sides, seemingly, looking upon the match as a quiet afternoon in the fresh air.

The hospital had a weakened side out, but even so, if a little life had been introduced into their play, might have won comfortably. The only goal scored was near the end, the ball trickling slowly into the goal, just inside the upright. Team:—

Guy's.—H. C. Rook (goal); H. B. Bastard, H. B. Neely (backs); C. Greene, A. Zorab, C. E. Rice (half-backs); H. H. Glover, P. S. Humm, T. L. Jones, C. J. Witts, C. Smith (forwards).

Remarks.—Glover was good at outside left, but little can be said of the rest of the forwards. Greene is somewhat inclined to dribble too much, and also hangs back instead of helping his wing forwards. Bastard was in excellent form; and Rook, in goal, was safe, as usual.

GUY'S v. OLD WILSONIANS.

Played at Honor Oak Park, in dull but dry weather, on November 27th. Both sides started one man short, but these late arrivals soon appeared. The Wilsonians attacked repeatedly at first, and were decidedly smart, although much inclined to get off-side. This latter offence was instrumental in the visitors scoring their first goal. After this the hospital attacked more vigorously, and several shots were taken at the visitors' goal, all, however, going just over, or just wide of the goal. Bevis at outside right was doing good work and centreing was especially good. Berg also, after changing places with Wain, and going outside left, got through some useful work. A mistake in the rear division resulted in a second goal against us, and shortly before time Bevis scored with a perfect shot from near the corner flag. Several chances were thrown away, Humm missing two good ones, and Witts misdirecting a perfect centre from Berg. The game ended in our visitors' favour, 2 goals to 1. Team:—

Guy's.—H. C. Rook (goal); H. R. Bastard, H. B. Neely (backs); A. Camp, G. Kyle, P. S. Humm (half-backs); S. Bevis, C. J. Witts, T. L. Jones, D. Wain, V. Berg (forwards).

Remarks.—Berg, Bevis, and Kyle, three new comers to the first team, are to be congratulated upon their maiden efforts. Bevis especially was good, and, but for many weak passes by Witts, would doubtless have comfortably beaten his opposing half and full back nearly every time. The centre and inside forwards are far too prone to opening out to the extreme wings when they are near goal, and do not do so in midfield. Camp and Kyle played a good hard game, but do not feed their forwards too well. Bastard at back, and Neely also, had an off-day, the former keeping too far up the field. Rook is rapidly developing into a very safe goal-keeper, and when he has mastered the art of judging when to run out and when to stay, will be even better than our late goal-keeper, who stood out by himself in the matter of judgment.

Change of Address.

Black, Kenneth, F.R.C.S., from General Hospital, Nottingham, to 30, Park Row, Nottingham.

Edsall, R. C. V., M.B., B.S. Lond., from Guy's Hospital, to High Street, Battle, Sussex.

Howard, R., M.A., M.D., B.Ch., Universities Mission, Zanzibar, and Devon House, Buckhurst Hill, Essex.

Miller, A. H., M.A., M.B., B.C., M.R.C.P. Lond., to 25, Welbeck Street, W. (Telephone, 2293 Mayfair), and at 4, Ben'et Place, Lensfield Road, Cambridge.

Mitchell, Howard E. H., M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond., from Guy's Hospital, to St. Ives, Salisbury Road, Carshalton, Surrey.

Rendall, W., M.R.C.S. Eng., L.S.A., from Maiden Newton, Dorset, to Hampton Lodge, Stanford, near Hythe, Kent.

Salvage, Lieutenant-Colonel J. V., R.A.M.C., M.D., M.S., from London, to Station Hospital, Muttra, India.

Soper, William, M.R.C.S., L.R.C.P., from 307, Clapham Road, S.W., to Sandringham Hall, Worthing. (Temporary.)

Stevenson, C. M., M.B., B.C. Cantab., from Sandhurst Lodge, Streatham High Road, S.W., to 237, Chesterton Road, Cambridge.

Weighell, H. J., L.D.S. Eng., from Westgate Street, Launceston, to Mayville, Okehampton.

(*The Editor will be very glad to receive a postcard with notes of any change of address.*)

Birth.

DAVIES-COLLEY.—On December 7th, at 24, St. Thomas' Street, the wife of R. Davies-Colley, M.A., M.C., of a daughter.

Death.

BROOKS.—On November 15th, at Sonning, Berks, Bransby Brooks, M.R.C.S., L.R.C.P., aged 75 years. (Godson of Bransby Cooper, and member of the Guyite Club, 1860.)

Ed.—A. N. C.

GUY'S HOSPITAL GAZETTE.

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Calendar of Coming Events and Ensuing Take-in Weeks.

December.

Sat. 25. Christmas Day.

Thur. 30. Messrs. Symonds and Steward's Take-in (Messrs. Crook & Evans).

January, 1910.

Sat. 1. 1st XV. v. Catford (Away).
2nd XV. v. Catford "A" (Home).
1st XI. v. Beckenham (Home).
2nd XI. v. Beckenham "A" (Away).

Mon. 3. Lectures resumed after Christmas recess.

Tues. 4. First Conjoint Examination begins.

Thurs. 6. Messrs. Lane and Fagge's Take-in (Messrs. Mullins and Fitzmaurice).
Second Conjoint Examination begins.

Passim.

THE GAZETTE offers to all the men and women who are, or have been, connected with Guy's in any way a Merry Christmas and a Happy New Year. To those who are not at the hospital we can only express the hope that they may find Christmas as enjoyable as those who are here expect to find it.

IN accordance with custom, we give below a CALENDAR OF THE CHRISTMAS CONCERTS.

Saturday, December 25th.—Christmas Day. The Niggers go round the Wards in the following order:—
Ruth Ward, 12 noon; Addison Ward, 12.20; Mary Ward, 12.40; Stephen Ward, 1; Esther Ward, 1.20; Queen Ward, 1.40; Bright Ward, 2; Out-Patients, 2.30, march through; John Ward, 2.40; Miriam Ward, 3; Patience Ward, 3.40; Luke Ward, 4; Naaman Ward, 4.20; Dorcas Ward, 4.40; Charity Ward, 5; Lydia Ward, 5.20; Job Ward, 5.40; Lazarus Ward, 6; Martha Ward, 6.20; Cornelius Ward, 6.40; Astley Cooper Ward, 7.0.
OUT-PATIENTS' TEA.

Monday, December 27th.—Christmas Tree in CHARITY, 2; Gilbert and Sullivan Concerts in CORNELIUS, 2; QUEEN, 3; LUKE, 4; PATIENCE AND SAMARITAN, 5.
RESIDENTS' THEATRICALS (see below), 8.15.

Tuesday, December 28th.—Concerts in ADDISON, 3.30; JOB, 3; NAAMAN, 3.30; LAZARUS, 5. Christmas Tree in MARTHA, 3. Gilbert and Sullivan Concerts in DORCAS, 2; EYE WARDS, 3; CHARITY, 4; MARY, 5.
RESIDENTS' THEATRICALS, 8.15.

Wednesday, December 29th.—Concert in DORCAS, 4.30. Gilbert and Sullivan Concerts in BRIGHT, 3; MARTHA, 4.
RESIDENTS' THEATRICALS, 8.15.

Thursday, December 30th.—Concerts in ESTHER, 3; CORNELIUS AND LUKE (Physiological Theatre), 3. Gilbert and Sullivan Concerts in NAAMAN, 2; LAZARUS, 3; ASTLEY COOPER, 4; and LYDIA, 5.
NURSES' ENTERTAINMENT, 8.

Friday, December 31st.—Concerts in STEPHEN, 3.30; MARY, 4; PATIENCE AND SAMARITAN, 3.30; CHARITY, 5; ASTLEY COOPER, 7.30. Special Final Gilbert and Sullivan Concert in ADDISON, 3.
BONFIRE, 11.30 p.m.

ON Monday next, and the two following evenings, the President of the Residents will "present" a triple theatrical bill in the Physiological Theatre, where a permanent stage has

been erected for these and similar performances. The first part of the programme, we understand, is to be a duologue, entitled, "Old Cronies," in which Mr. H. M. Woodward, an old Guy's man who has had considerable experience of the stage, will play one of the characters. Mr. Woodward is also acting as stage manager for the other pieces. The Residents are very fortunate in having secured his valuable assistance. The second part consists of a one-act play, "The Suicide Club," adapted by L. E. Bermen from Robert Louis Stevenson's well-known tale of the same name. It will be remembered that a version of this thrilling melodrama was included in the *répertoire* of the company from the Grand Guignol, Paris, and recently, under the title of the "Hampton Club," and played by Mr. Seymour Hicks and company it has proved an attractive item at the Coliseum.

The third piece is, of course, a hospital farce, in which all the Residents take part. Except a new play by Mr. H. O. Brookhouse, the President could not do better than produce an old one by the same author. Mr. Brookhouse is unfortunately no longer at the hospital. "The Spoils of Victory," which was played three years ago, is therefore to be revived. It has been adapted and brought up to date by Mr. Harold Chapple, and although some members of the audience will remember the previous performance, to most the play will probably be quite new. Its central idea is certainly even more topical now than it was three years ago. We may here remind our readers that this play, in its original form, has been published, and that some copies are still available and can be obtained from the Gazette Office for half-a-crown.

In continuation of the series of portraits of famous Guy's men, we are issuing this year a photogravure of Dr. Thomas Hodgkin. Although Hodgkin was never a member of the hospital staff, his share in founding the Medical School of Guy's, and his eminence as a pathologist, make his name rank among the greatest in the history of the hospital. His work gave the first impulse to that study of pathology which later in the last century, in the hands of Wilks and others, made the Guy's school famous in this branch. We are fortunate in being able to offer our readers some account of Hodgkin's life and work from the pen of Sir Samuel Wilks himself, who assuredly of all living men is best qualified to speak on this subject. Our portrait of Hodgkin is copied from an engraving in the possession of the Royal Society of Medicine, which we were kindly allowed to photograph.

The name of Hodgkin suggests the subject of calling diseases after their discoverers. This plan, which is ridiculed by some and abused by others, has, we think, many points in its favour. At any rate, while our knowledge of the pathology of a disease remains imperfect, as in Hodgkin's disease, or where the name is applied to a symptom-complex, and not to a morbid process, as in Addison's or Stokes-Adams' disease, this use of names seems to be justified. It commemorates the discoverer's name, which must do good rather than harm; it is usually less cumbersome than a "rational" nomenclature, and, above all, it connotes some definite set of symptoms, and cannot be unduly stretched in its application. The diseases named after Guy's men are themselves sufficient justification for this plan of nomenclature.

The following appointments have been made by the House Committee upon the recommendation of the Medical Committee:—House Physicians: C. A. Basker (Dr. Pitt), A. A. Greenwood (Dr. Shaw); House Surgeons: H. R. Mullins (Mr. Lane), H. C. Lucey (Mr. Dunn); Out-Patient Officers: T. F. Brown, S. J. Darke, T. Evans, A. E. Lees; Assistant House Surgeons: C. H. Mills (Mr. Steward), A. L. Fitzmaurice (Mr. Fagge), J. L. Johnston (Mr. Rowlands), M. A. E. Duvivier (Mr. Turner); Obstetric Resident: V. Townrow.

The following appointments in the Dental Department have been made by the House Committee on the recommendation of the Dental Council:—Dental House Surgeons: F. B. Bull, C. H. Bradnam, R. W. Powell; Assistant Dental

House Surgeons: C. H. Barnett, C. J. Henry, E. P. Hudson.

It is once again our pleasant duty to congratulate several members of our First XV. on being chosen to play in representative football. C. S. L. Roberts and W. S. Stranack recently played for the England team against the North, and the former player also for England against the South. In this match another of our men, L. B. Stringer, played for the South; and G. R. Hind and W. S. Stranack were reserves.

It is with some trepidation that we refer to politics in these pages, but the great interest and importance of the impending General Election cannot possibly be overlooked, and no one who "has the welfare of his country at heart" can altogether hold aloof. Our readers may be interested to know that two old Guy's men are candidates in the coming contest. We understand that Dr. Salter, who was defeated in the recent bye-election in Bermondsey, does not intend to stand again in January. In the adjoining division of Rotherhithe, however, an old Guy's man—Mr. F. E. Fremantle—is the Unionist and Tariff Reform candidate. The other old Guy's man is Dr. R. O. Moon, who is the odd man in the threatened three-cornered contest in East Marylebone. The candidature of a medical man in this division is of special interest, inasmuch as it includes Harley Street, Wimpole Street, and the other "medical" streets. Dr. Moon came to Guy's from Oxford, where he took his M.D. in 1900. He is physician to the National Hospital for Diseases of the Heart, and to the Western General Dispensary, and assistant physician to the Royal Waterloo Hospital. He has recently published a book on "The Relation of Medicine to Philosophy."

The annual meeting of the General Council of King Edward's Hospital Fund for London, for the award of grants to the various hospitals and other institutions, was held recently at Marlborough House, the Prince of Wales in the chair. A grant of £9,000 was awarded to Guy's, as compared with £7,500 last year. It was announced that the members of the General Council were elected for a further term of office, with the addition of Lord Sandhurst, Canon Barnett, and Sir Cooper Perry.

There is a scene in M. Maeterlinck's fairy play *The Blue Bird*, now running at the Haymarket, where the children yet unborn dwell in the Kingdom of the Future. Father Time comes to fetch those which are to be born on that particular day, to take them to earth, and as the children run aboard his galley, he comments on their individual destinies. At one little fellow he exclaims: "More doctors? ... There are too many already; they are grumbling about it on earth." Is it true, we wonder, that there are too many? The new edition of the *Medical Directory*, just issued, shows an increase for last year of 566 names on the register, while the corresponding increase for the previous year was only 289. But this was an exceptionally low figure, and marked the lowest stage of a progressive decline which had lasted for five years. Now, apparently, doctors are on the increase again, and soon the general public (and their fellow-practitioners!) will begin complaining that there are too many of them. There are now 40,558 persons holding British qualifications, and there are 6,427 in London alone.

We note with interest that at a recent meeting of the Zoological Society, Dr. Rose Bradford, a Vice-President, in the chair, Sir E. Cooper Perry was elected a Fellow of the Society.

Within the last few days medical research in London has been very handsomely endowed from two sources. Under the will of the late Dr. Chas. Graham, of Hastings, formerly Professor of Chemistry at University College, London, a fund for medical research is to be formed out of the residue of the estate, probably some £35,000. From this, aid is to be given to students of that institution who are conducting researches designed towards the "prevention, cure, or alleviation of human disease or suffering." This scheme, therefore, benefits University College alone, but it is worth note as a sign of the times. Medical research in this

country is beginning to be more adequately recognised and rewarded—if not by the State, at any rate by private individuals. We hope, too, that Dr. Graham's bequest may set the example to other generous and far-sighted benefactors, and that our own school at Guy's may before long receive more endowments of this kind.

THE other endowment of research to which we referred is on a larger scale, and concerns not the students of one school only, but all. The Senate of London University recently received a letter from Mr. Otto Beit, offering to set aside a sum of £215,000 for fellowships in medical research, to be named in memory of his brother, the late Mr. Alfred Beit, whose generous benefactions we have good cause to remember at Guy's, where he was one of our Governors, as Mr. Otto Beit is now. The history of this splendid endowment is very interesting. It may be recalled that, a few years ago, when a scheme for a great London University Institute of Medical Sciences was in the air, a sum of £50,000 was given by the late Mr. Alfred Beit towards it. Later, as this scheme was never realised, the amounts subscribed had to be returned to the donors, and among them Mr. Beit's £50,000. In view of the deep interest which his late brother took in the advancement of medicine, Mr. Otto Beit has decided to increase this sum to £215,000, and to apply it to the endowment of research. Thirty fellowships, each of the annual value of £250, are to be established, ten of them becoming vacant each year. The first election of ten fellows will take place next March. The researches are to be conducted in certain specified institutions, chiefly medical schools and other laboratories in London. The conditions attaching to the fellowships are conceived in a broad-minded spirit, and we may confidently expect them to be interpreted in the same spirit by the Trustees and Advisory Board, which is composed of a number of distinguished men. We hope that some of these "Beit Memorial Fellowships" may fall to the lot of Guy's men, and that the latter will make good use of the splendid opportunities for medical research thus afforded them.

A Short Account of the Life and Works of Thomas Hodgkin, M.D.

BY SIR SAMUEL WILKS, M.D., LL.D., F.R.S.,
Consulting Physician to Guy's Hospital.

WHEN asked to write my reminiscences of Dr. Hodgkin, it ought to have been known that he had retired from his office at Guy's some years before I entered there as a student, and therefore neither myself nor any other person could have any remembrances of him. But as in the case of all good men, his works live after him, I may very confidently say that at a very early part of my career, having thoroughly acquainted myself with all the work he had done, I am in a far better position than anyone else to speak of the leading facts of interest and to lay them before your readers. But before doing this, it would be better and even necessary to give some little history of the conditions and time in which Dr. Hodgkin commenced his duties as curator of the museum and lecturer on pathological anatomy, seeing that he was one of the most ardent workers in the formation of the medical school at Guy's Hospital which was opened on June 21st, 1826, under the auspices of the Treasurer, Mr. Benjamin Harrison.

THE ORIGIN OF THE GUY'S MEDICAL SCHOOL.

For many years the two hospitals of Guy's and St. Thomas's had been united, as well as the schools, under the name of the Borough Schools. Sir Astley Cooper gave the surgical lectures at St. Thomas's, whilst the medical lectures were given at Guy's. The medical theatre, I believe, still remains, and herein were also given the chemical lectures and those on materia medica; it was used also for the meetings of the Physical Society. This Society, I may state, was formed for the benefit of the members of the profession who resided in the neighbourhood of the hospital, and was founded in 1771. Jenner once came and discoursed on the subject of cow-pox.

Mr. Benjamin Harrison, who had served a good apprenticeship to his father, who was then Treasurer of Guy's, took his place when he was only twenty-six years of age, in the year 1797. He held office for more than fifty years, until he retired in 1848. He was a man of great energy and determination, so that he soon began to renovate the wards of the hospital, and made several important improvements; some of them

for the especial purpose of teaching, as this was evidently in his mind. This soon showed itself by his proposed separation of St. Thomas's and his determination to have a separate school for Guy's. On the vacant ground which had originally been taken by Thomas Guy, he built the museum to contain the preparations and an adjacent one for the wax models, also the dissecting-room and other offices. He erected also a distinct house for patients with diseases of the eye, both for their treatment as well as for the purposes of teaching. He also had a room devoted to the use of electricity, and provided it with a large glass rotating machine. I mention all this because Hodgkin had a great interest in the development of Guy's, for some reason which I never knew, taking especial interest in building the museum to which he was appointed the first curator and lecturer on pathological anatomy. This done, the Treasurer severed his connection with St. Thomas's by resigning his position as a Governor; at the same time declaring, or so it is reported, that "the success of Guy's school was as dear to him as the apple of his eye." It was formally opened in 1825, and proved an immediate success. The rise of Guy's was accompanied by an equal fall of St. Thomas's.

The Life of Hodgkin.

Dr. Thomas Hodgkin, who was born at Tottenham in 1798, was the son of John Hodgkin, a barrister and a Quaker preacher. A high legal position was offered him, but he declined to accept it, and in his latter years employed his time in alleviating local distress. The son, Thomas, studied at Edinburgh, where he graduated and took his M.D. degree in the year 1823. He was complimented on the Latinity of his thesis, "De absorbendi functione." He then travelled on the Continent, and especially in Italy and France, and gained a knowledge of foreign languages. He commenced practice, but being purely a scientific man he preferred the study of such a subject as pathological anatomy, and to this he soon became most devoted. He was extremely interested in the coming school of Guy's, and was appointed curator of the new museum and lecturer on pathological anatomy. He published his lectures in two volumes, entitled, "Lectures on the Morbid Anatomy of the Serous and Mucous Membranes." He devoted nearly all his time to the museum, so that, since its opening four years before, in the year 1829, when he published his catalogue of preparations, they amounted to three thousand. No doubt, at such an early period of the study of this branch of science, he preserved everything which was curious and new to him. There was found, in the time of my curatorship, a fibrinous hard lump in the liver, which is evidently syphilitic; then a lardaceous liver, which he described as being large, round, hard, and dry, and cut like a ham, and it came from a lad who had long been bed-ridden from caries of the spine. It is curious that Hodgkin, in his lectures on cancer and tumours, should speak of the word "lardaceous," as used much in French books, from its supposed resemblance, both in colour and appearance, to the white fat of bacon, and says, "I confess that I am not able very confidently to define the meaning of this word." There is also a specimen of disease of the heart, showing a torn and retroverted aortic valve. This he exhibited at the Hunterian Society, which contains also his report of the case. My information, however, was gained from reading the report in the *Medical Gazette* for February, 1827, and from his description I should not hesitate to say that it was the first of the kind which was examined in a truly scientific manner. The cause of the sounds are described, even their peculiar character, for Hodgkin was a good auscultator, and it was evident that he had thoroughly studied the works of Laennec. The case was that of a young man who, when a graduate at Cambridge, was known for his excellent rowing and various athletic performances. On examining him, Dr. Hodgkin states that his patient had a steady arterial action, but a remarkable thrill in the pulse. The heart which he exhibited was much enlarged, and one valve was elongated, and hung down towards the ventricle; he believed that the two sounds he heard, which he calls the "bruit de scie," were caused by the blood being subject to two motions, the one progressive and the other retrograde, in both of which it might evidently give rise to some sound as it passed the elongated valve. Hodgkin states that he brought the specimen before the society, as he found no description of aortic disease given by any of the distinguished French physicians. I am not aware myself of any author who, at that time, had given so good an account of this form of cardiac disease as Dr. Hodgkin had done, nor am I aware of any writer having described it at all before the year 1827. Dr. Hodgkin does not seem to have appreciated the very characteristic pulse in aortic regurgitation; this observation is attributed to Dr. Corrigan, an eminent Dublin physician, whence it is often called Corrigan's pulse. His essay on the subject is to be found

in the *Edinburgh Medical Journal* for April, 1832.

Hodgkin's Disease.

In the Medico-Chirurgical Transactions for 1832, Vol. xvii., is a paper read before the society by Dr. Hodgkin, entitled, "On some Morbid Appearances of the Absorbent Glands and Spleen." He begins by saying that "the glands are enormously enlarged, and also the spleen, which has scattered through it a white deposit like suet," and he further remarks that "the morbid alterations of structure which I am about to describe are probably familiar to many morbid anatomists, since they can scarcely have failed to have fallen under their observation in the course of cadaveric inspection. They have not, as far as I am aware, been made the subject of special attention, on which account I am induced to bring forward a few cases in which they have occurred to myself."

It is quite true, as Hodgkin remarks, that such a marked form of disease could not possibly have been overlooked, and certainly not by any one who was daily making post-mortem examinations. Therefore, before very long, an example came before me at our hospital, and I showed the specimen at the Pathological Society in the year 1865. The disease was so little known that I was credited with having made an original observation, and the same was stated in the medical journals. Although no allusion to it could be found in the museum catalogue, I soon found out that he had taken specimens to the Medico-Chirurgical, and described the disease in the words I have just quoted. What followed afterwards I will not give in my own words, but in those of a distinguished physician at St. Bartholomew's Hospital. In speaking of the disease as being attributed to myself, he adds that "Dr. Wilks, with the generous desire to perpetuate the name of his predecessor in the office of teacher of pathological anatomy at Guy's Hospital, gave the name to this morbid state of Hodgkin's disease."

His Work in the Museum.

I might also state that a nucleus of the museum was contained in a small collection of specimens which had been preserved in a small room near the post-mortem department. Amongst them were specimens of large crooked bones, and a calvaria of enormous thickness, styled *osteoporosis*, now known by the name of *osteitis deformans*. There was also a dried piece of sterno-hyoid muscle, which was preserved in the year 1828, with white specks in it. Dr. Hodgkin said these looked like cysts, and thought they might be the eggs of pediculi. A few years afterwards similar deposits were discovered by Mr. Hilton in the dissecting room, and preparations were made, with a description of them. "This account," says Dr. Hodgkin, "accompanied with illustrative drawings, was presented to the Medical and Chirurgical Society, January, 1833, and there read, but its publication was suppressed by the Council." The paper was called, "Notes of a peculiar appearance observed in human muscle, probably depending upon the formation of very small cysticerci, by John Hilton, Demonstrator of Anatomy, Guy's Hospital." Two years afterwards a case occurred in St. Bartholomew's Hospital, and being referred to Professor Owen he carefully examined them, and, in the words of Dr. Hodgkin, "this indefatigable and talented naturalist, Richard Owen, has minutely and carefully examined them, and regards them as somewhat allied to the eels found in paste and vinegar. He has given them the name of 'trichina spiralis.'"

Now, having briefly mentioned some of the principal preparations in the museum, which will always make the name of Hodgkin remembered, I must add that his great object in making such a collection was with the belief that he was laying the foundation of a larger pathology as the basis of scientific medicine. Animated by this feeling, and how eager he was also to assist in the development of Guy's, he said, at the beginning of his course, "I assure you that it will be my constant aim—whether I may be fortunate enough to reach the mark or not—to co-operate with those who are strenuously endeavouring to render the school of Guy's Hospital the first medical school in the kingdom." I cannot do better than repeat what I have said elsewhere in reference to Dr. Hodgkin. The foundation which he then laid in the museum and pathological department was one on which many distinguished men have since built by adding their mite to the work he so well began. Everyone who cares to look upon Guy's as his alma mater cannot but feel a debt of gratitude to Hodgkin for the important share he took in endeavouring to constitute it a scientific school of medicine. It may be safely asserted that there had been no writer on pathology in this country, before his time, who had grasped the subject in so philosophic a spirit. When I say this I have a full knowledge of the description of diseased organs given by Carswell, Hooper, Bathe, and some other distinguished professors who preceded him.

Other Studies.

Besides pathological matters, there were other kindred subjects in which Hodgkin had a great interest, and more especially comparative anatomy and physiology, as it enabled him to find an explanation for the various malformations and monstrosities which he came across in his daily pursuits. He evidently had a strong conviction of evolution, and explained in this way the retention of some form of fœtal life which resembled those of the lower animals. After describing the analogies of all vertebrate animals in the structure of the limbs, he says, "that we may descend to even more humble forms of life. It is in these resemblances traced out with respect not merely to particular organs, but to their combinations in the composition of an individual, that some philosophical anatomists of modern times have founded the doctrine of analogies and of a unity of plan pervading the whole animal kingdom. This doctrine is extremely beautiful and even sublime, and affords a happy explanation of many remarkable phenomena in the organisation of animals. I will endeavour to show the importance of the investigation of monstrosities in reference to the doctrine of which we have taken a glance. In ascending from the lowest form of animal life to the most perfect, we have a gradual development and increase of parts, and this we also observe to be most marked and regular in the most important organs. Now, in the human embryo, as well as in those of the most perfect animals, the heart, in the progress of its development, exhibits those forms which are permanent with the inferior animals. In the malformation of the heart, the organ which I have adduced by way of example, we find a rudimental form analogous to the structure of the fish and batrachian reptile, but a degree of development, extremely analogous to that of the saurian reptiles, of which lizards and crocodiles are examples, is by no means uncommon."

There were many other subjects in which Dr. Hodgkin interested himself. He wrote a pamphlet on Oxford's trial. Oxford was the young man who shot at Queen Victoria, and spent a long life in Bethlem and afterwards at Broadmoor Asylum. He discusses the question of moral insanity and the "lésion de la volonté" of a distinguished Frenchman who discussed the questions of monomania, and strange impulses. Hodgkin also read a paper before the Philological Society, entitled "Physiological Remarks on Language." In this he discusses the movements of the mouth and adjacent parts in the formation of the letters of the alphabet. Then he speaks of the modification in different countries, and finally the natural history of language, in which he discusses the opinion held by many, that all languages had a parent or common origin in the remote past.

Dr. Hodgkin translated a small French work on the "Influence of Physical Agents on Life," in which he adds many remarks of his own, and amongst these he discusses the value of cold water in fevers, a method at that time proposed by Dr. Currie of Liverpool. He speaks with approval of the plan and of a patient whose temperature rose to 100°, and the great good which ensued after the application of cold water.

I must not omit to mention that Dr. Hodgkin states that at a meeting of the Hunterian Society in March, 1828, Dr. Babington submitted to the meeting a curious instrument for seeing within the fauces. "It consists," he says, "of an oblong piece of looking-glass set in a silver wire, with a long shank. The reflecting portion is placed against the palate, while the tongue is held down by a spatula, when the epiglottis and upper part of the larynx become visible in the glass. The instrument should be dipped in water so as to leave a film of water upon it, as the halitus of the breath would render it cloudy. The doctor proposes to call it a *glottiscope*." In one of Dr. Hodgkin's lectures he speaks of it as the "*speculum laryngis* or *laryngiscope*, invented by my friend Dr. Babington in 1829."

His Resignation.

In 1837 there was a vacancy in the office of assistant physician at Guy's, and Dr. Hodgkin offered himself for the post; there was, however, another candidate, and to him the physicianship was given. Dr. Hodgkin, as he had been curator of the museum and a lecturer at the school, very naturally expected that he would be placed on the staff of the hospital; his disappointment, therefore, was great, and after twelve years of service, seeing no prospect before him of ever attaining the position he hoped to obtain, he resigned his office. Why the Treasurer allowed him to resign, or frustrated his effort to obtain a position on the staff, is not very clear, but the impression at the time was that Hodgkin was too independent a man to live under a despotic rule, and that King Harrison, as the Treasurer was called, had long perceived this. It was thought that the Treasurer's determination was finally made when Dr. Hodgkin drove into the square of the hospital with a North

American Indian in his full costume sitting beside him, and thus was seen from the windows of the Treasurer's House.

This resignation was an immense disaster to the cause of scientific medicine. Guy's Hospital lost one of its greatest ornaments, and the whole profession in England lost one who was destined to shed a lustre on its ranks. It was the same as when a young man dies full of promise, and the whole country mourns :

> For Lycidas is dead, dead ere his prime,
> Young Lycidas, and hath not left his peer.

So it was with Hodgkin, who had served the school of Guy's Hospital so well for twelve years with the utmost brilliancy, and now left it in the thirty-ninth year of his age.

During the time Hodgkin was a Professor at Guy's he lived, I believe, at Islington, where he had a small practice ; this somewhat grew when he gave more time and attention to it, but he was much imposed upon by his friends, who obtained from him gratuitous advice, and from strangers he took only small fees. But his heart was not in it ; he had lost the opportunity of fulfilling the ambitious aim which he had conceived, and was ever before him, that of advancing and developing his profession in a truer scientific spirit than had hitherto been done. As this was lost, the next thing most congenial to him, and which fulfilled all the best desires of his nature, was alleviating the distress of the poor, to obtain them better housing, and, above all, to do more for the oppressed savages through the instrumentality of the Aboriginal Society which he had already founded, and for the persecuted Jews he had the strongest desire to give his assistance. This brought him in contact with Sir Moses Montefiore, a man of kindred spirit with himself, who was endeared to his people by the munificent charities he had erected for them, and his sympathy with their distress and poverty in all parts of the world. Whenever he heard of any special case of persecution he had no rest until he had done his utmost to remedy it ; he waited on the Czar, and, I believe, also on the Pope, all the while being accompanied by his devoted wife, who was also known for her good deeds. He was not unnoticed by Queen Victoria, who honoured him with a title.

His Death.

Nothing, therefore, could be more pleasing to Hodgkin than to join Sir Moses on a mission to Palestine, each of them feeling a great interest in the country. I believe they had previously been there, as well as to many other foreign places together, where any misery might be alleviated. It was on their last visit to the Holy Land, which they both loved so well, when Dr. Hodgkin was seized with a mortal eastern malady which struck him down, and he died at Jaffa in April, 1866, at sixty-eight years of age. His friend, Sir Moses, erected a monument over his grave, in the form of an obelisk made of Syenite granite, on which is the following inscription :—

> "Here rests the body of Thomas Hodgkin, M.D., of Bedford Square, London, a man distinguished alike for scientific attainments, medical skill and self-sacrificing philanthropy. He died at Jaffa the 5th April, 1866, in the sixty-eighth year of his age, in the faith and hope of the Gospel.
>
> 'Humani nihil a se alienum putabit.'
>
> "The epitaph is inscribed by his deeply sorrowing widow and brother to record their irreparable loss."

On the obverse is the following :—

> "This tomb is erected by Sir Moses Montefiore, Bart., in commemoration of a friendship of more than forty years, and of many journeys taken together in Europe, Asia, and Africa."

No one could better exemplify the force of this inscription than Hodgkin, for he never had a thought that any human being in distress, to whatever nation he might belong, was strange or foreign to him. And no more appropriate place could have been thought of for his remains to rest in than the old town of Joppa, on the shores of the Great Sea, for here it was that St. Peter fell into a trance and saw a wondrous vision, which a voice interpreted to him as meaning that "God was no respecter of persons," and that mankind should treat "all nations as one."

Pass List.

Royal College of Surgeons of England.

Final Examination for the Fellowship.

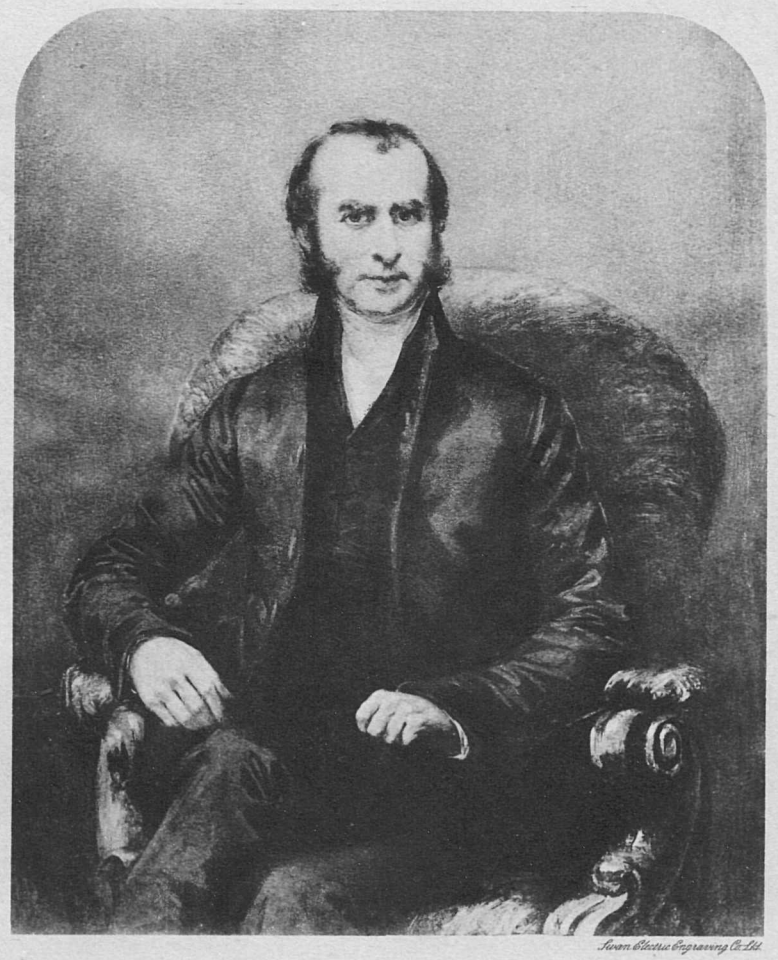
A. S. B. Bankart, B.C. Cantab., M.R.C.S., L.R.C.P.

University of Oxford.

Second B.M. Examination.—Forensic Medicine and Public Health.

G. H. Hunt, B.A., Christ Church.

Periodicals Received.—The Hospital ; The Clinical Journal ; Middlesex Hospital Journal ; Charing Cross Hospital Gazette ; St. George's Hospital Gazette ; South African Medical Record ; University of Durham College of Medicine Gazette ; Manchester University Magazine.



Swan Electric Engraving Co. Ltd.

Thomas Hodgkin, M.D.

Born. 1798. *Died. 1866.*

Eosinophilia.

CLINICAL LECTURE BY HERBERT FRENCH, M.A., M.D., F.R.C.P.

Gentlemen,—The subject of our lecture to-day is eosinophilia, under which heading one includes conditions in which, should we prepare a blood film and make a differential leucocyte blood count, the coarsely granular eosinophile corpuscles, which ought not to be more than 2 per cent. of all the leucocytes in the blood, amount to somewhat over 5 per cent.

I show you here a patient who has eosinophilia, and it is upon her case that I intend to base my remarks to-day. The history is that she and her husband recently had some meat that was so bad that her children refused to eat it—they described it as "stinking"—and almost immediately afterwards her husband had diarrhœa, vomiting, and collapse, indicative of ptomaine poisoning, whilst she herself, without any gastro-intestinal symptoms, came out in large red areas and "water-blisters" all over her body, limbs, face and neck. The large blebs, or bullæ, were very striking. Knowing that in certain skin diseases there is eosinophilia, my clinical assistant, Mr. Wood, made a differential leucocyte blood-count, and found that the coarsely granular eosinophile cells amounted to 8 per cent., whilst in films of the serous contents of the blebs themselves more than half of the cells were coarsely granular eosinophile corpuscles. If you will look at the patient here you will at once see how extensively her skin has been affected. In some places there are merely reddened areas, an inch or more in diameter, round or oval in outline, where there have been blebs, but where the trouble is already nearly well; in other parts you will see smaller areas covered by a kind of scab or crust, due to there having been a bleb, the contents of which have begun to dry up; in other places, again, you will notice typical big blisters, distended and baggy with yellowish clear fluid. Some of the blebs are no more than half an inch in diameter, whilst others are two inches or more across. Around most of them you will see there is reddening of the skin, though in one or two places you may see small bullæ with no redness of the skin at all. When the trouble began, the first things to appear were the clear blisters; these became surrounded by a ring of redness, then the fluid within the blebs began to dry up, crusts were formed, and when these crusts fell off dull red areas of skin remained, and these in due course will slowly fade and return to their normal colour, or else may remain more or less pigmented.

One point in particular that I would draw your attention to here is, that whereas upon her limbs, face and neck the blisters are simple and unilocular, upon some parts of the trunk the lesion presents a rather different type. You will see here what was originally a small bulla, which dried up at the centre and was then succeeded by a ring of large vesicles or small bullæ round the place where the first bulla had been. These secondary blebs have dried up in their turn, in some places to be succeeded by a third ring immediately outside them again, successive groups of little bullæ developing concentrically, spreading at the periphery, whilst the older bullæ nearer the centre dry in and disappear. I wish to lay some stress upon this, because here we have a patient who shows you at the same time lesions which are sometimes regarded as essentially distinct, the single blisters, without erythema or reddening, being typical of what is usually known as pemphigus, the erythematous patches with blisters on them being spoken of as erythema bullosum, whilst the spreading rings of blebs are sometimes spoken of as a separate disease known as herpes iris, or erythema iris.

It is possible for patients of this kind to suffer from similar bullous eruptions upon the mucous membranes, paticularly in the mouth, which is rendered so sore and inflamed and swollen that it is impossible for the patient either to speak or to eat food. Nasal feeding becomes necessary. Fortunately this woman exhibits no such tendency, so that she has been spared from what is a most painful and disastrous complication of the disease.

Returning now to the question of eosinophilia, you will find that it occurs under three main groups of conditions, namely:—

Group I.

True spasmodic asthma.

Group II.

Certain animal parasitic conditions, especially:

Anchylostomiasis,
Bilharzia hæmatobia,
Trichina spiralis,
Hydatid disease; and to less extent with
Tænia solium,
Tænia medio canellata, and
Bothriocephalus latus; whilst it does not occur at all with
Trichocephalus dispar,
Oxyuris vermicularis, or
Scabies,
Ascaris lumbricoides.

Group III.

Certain skin diseases, the most important by far in this respect being the bullous dermatoses, namely:

Pemphigus,
Erythema bullosum,
Erythema iris,
Dermatitis herpetiformis, and
Herpes gestationis.

It is clear that we have not time to discuss all the above conditions fully to-day, but there are a few important points that I should like to lay special stress upon.

First in regard to Asthma. You all know that the main feature of asthma is dyspnœa coming on in paroxysms and primarily unaccompanied by any cough. The patient is free from the trouble for the greater part of the time, but at certain periods, and as the result of different exciting causes in different cases, he is liable to an attack of severe dyspnœa which seizes him usually in the small hours of the early morning, and persists for a time that varies from as little as a few minutes to as long as several days.

Typical asthma, so long as it remains pure asthma, is not difficult to recognise. Nevertheless, there is probably no other ordinary disease in which greater difficulty in arriving at a correct diagnosis may arise, because all sorts of things in which shortness of breath occurs with or without cough are apt to have the term asthma applied to them indiscriminately. One of the reasons for this is that as time goes on one of the effects of asthma is to cause permanent emphysema by over-distension of the lung alveoli, and you all know that any person who suffers from emphysema is particularly apt to develop first a wheezing, then a cough, and finally actual chronic or acute bronchitis; moreover, in many cases of bronchitis and emphysema the cough may be in abeyance for longer or shorter periods and then come on in very severe spasmodic paroxysms. Such paroxysms of coughing, due to bronchitis and emphysema, are very apt to be styled asthmatic. Any person who suffers from asthma, say at 20 years of age, is pretty certain to suffer from emphysema and bronchitis by the time he is 40 or 50, and by that time, apart from the history, it may be very difficult to distinguish his condition from that of another person who has no asthma at all, but who has emphysema and recurrent bronchitis. So-called bronchitic asthma is not asthma at all.

The essential pathology of asthma is reflex spasmodic contraction of the muscles of the bronchioles, whilst loss of elasticity of the long tissue, followed by inflammation of the bronchial tubes, lies at the bottom of the bronchitis that is associated with emphysema. The difficulty is to tell when the bronchitis and emphysema start from an asthmatic basis, and when it starts from a basis that is not asthma at all.

How are we to distinguish between the two? In both there will be an over-distended chest of large size, but of deficient expansile movement; the epigastric angle will be wide, the antero-posterior diameter of the thorax will be relatively great; there will be hyper-resonance on percussion, with deficiency in the cardiac dulness, or the heart region may be as resonant as the rest of the chest; the vesicular murmur will be shortened in its inspiration phase, and lengthened in expiration, and there will very likely be either sibilant or sonorous rhonchi, or both. When a number of years have passed by, the two cases—asthma with secondary bronchitis, and primary emphysema with bronchitis, will look so much alike that they will be apt to be regarded as identical. It is, however, very unusual for asthma to start late in life. Always look with some suspicion upon the diagnosis of "asthma" in a person who has never had dyspnœa until 45 or 50 years of age. Be chary of diagnosing asthma unless the patient's attacks of dyspnœa began between 20 or 30 years of age, or even sooner, and unless the original attacks were unaccompanied by cough.

The second way of distinguishing the two is by treatment; true asthma yields to remedies such as the fumes of various stramonium powders, cocaine and belladonna sprays, mixtures containing the ethereal tincture of lobelia, or to surgical measures directed towards destroying the reflex centre in the nose from which many asthma attacks have been found to have started more readily than does paroxysmal bronchitis. It should be remembered, however, that the bronchitis that asthma ultimately produces is just as difficult to treat as is the bronchitis caused by emphysema without asthma.

The third way of distinguishing the two is one our lecture to-day brings us into immediate contact with, namely, the fact that a great many cases of true asthma exhibit eosinophilia. It is important to realise that this eosinophilia comes and goes in a remarkable way, and that it may disappear entirely between the spasmodic attacks; during the attacks, however, considerable eosinophilia is the rule, so that if you are confronted with a case in which you are not

certain whether the disease is asthma or not, and if you find upon examining properly-prepared blood-films that there is a decided eosinophilia, your suspicion that the case is really asthma will be confirmed. There is no such eosinophilia in ordinary bronchitis and emphysema. This means of differential diagnosis will be of much assistance to you sometimes in distinguishing between true asthma upon the one hand and other causes of spasmodic dyspnœa besides bronchitis and emphysema upon the other. I need do no more than enumerate some of the many conditions which may at some time or another simulate asthma on account of the spasmodic attacks of dyspnœa to which they may give rise. Amongst such conditions are:—(1) Cardiac dyspnœa due to valvular disease, especially mitral stenosis, or to myocardial degeneration, especially in cases of fibroid, fatty, or alcoholic hearts; (2) in kidney cases, either as the result of cardiac changes, or as the result of changes which are still obscure, but which are spoken of by the name of uræmia—so-called uræmic asthma; this is very much like ordinary asthma, an urgent hissing dyspnœa seizing upon the patient, especially in the middle of the night, distinguishable from true asthma by the patient's age, by the presence of albuminuria and high blood-pressure and by the absence of eosinophilia; (3) hypertrophy of the thymus gland in children—so-called thymic asthma; (4) certain cases of thoracic aneurism; (5) some cases of mediastinal new growth; (6) some cases of spasm or inflammation of the larynx, such as may result from a papilloma or a foreign body in the larynx; (7) tracheal obstruction by a goitre; and there are doubtless other conditions besides these which may simulate asthma.

The possible value of the differential leucocyte count in such cases is well exemplified by a man who was under the care of Dr. Bryant when I was house physician. The patient was a member of the Hoogly Pilot Service, which, as you know, necessitates a stiff examination, and in due course leads to a fairly good pension. He had a wife and two children dependent upon him, and he had no other income except that which he derived from his work as a pilot. He developed a complaint of which severe spasmodic dyspnœa with a slight cough was one of the most prominent symptoms; this became so bad that the authorities decided to send him home to England for a diagnosis to be made, the nature of the complaint being thought to lie between asthma on the one hand, and either an aneurism or a new growth within the thorax upon the other; if it was either of the latter the patient would have had to have left the service, but if it was a case of asthma it was hoped that it might not be necessary for him to do so.

Every method of investigation that could be thought of was carried out, including the use of the X-rays to the chest, careful examination of the larynx with the laryngoscope, and so on, and yet the diagnosis still remained unsettled. The ward clerk in the case, however, found, upon making a differential leucocyte count, that films contained no fewer than 50 per cent. of coarsely granular eosinophile corpuscles, and this finding was confirmed by others on several occasions. It was this fact of eosinophilia which was in this particular case the deciding point in favour of the diagnosis of asthma.

I do not know whether you realise how much this means, but if you could place yourself in the position of that individual patient you would appreciate that for him eosinophilia made all the difference between starvation on the one hand, and the continuance of his occupation upon the other. It is a good example, I think, of the way in which small points often become of extreme importance in practice.

Turning now to the second group of causes of eosinophilia, namely, the animal parasites of man, I need, I think, do little more than call your attention to the list above in order to remind you that it is only the more serious of the parasites that cause the eosinophilia; that many of them are intestinal, and their presence may be confirmed by looking for ova in the fæces. The precise methods of examining for ova, and the appearances of the latter, are described in the laboratory text-books, and they are better learned by practice than from a lecture, so that I need not enter upon them here.

The third group of causes of eosinophilia consists of certain skin diseases. It is often stated in a general way in text-books that most skin diseases are apt to produce eosinophilia. I have investigated this point particularly, and I am sure that the great majority of skin diseases do not produce eosinophilia except, perhaps, in a very small percentage of cases. There is, however, one well-defined group of skin affections in which eosinophilia, though by no means constant, is so apt to occur that it is found more often than not, and these are the so-called bullous dermatoses. There are, of course, a great many different causes for bullæ upon the skin, and by no means are all of these included in the term bullous dermatoses. Ordinary blisters on the feet, for example from marching,

or upon the hands from rowing, or upon the legs in association with a fracture or anasarca—these are not bullous dermatoses, although they are blisters; they give rise to no eosinophilia. The same applies to other conditions that may sometimes produce bullous eruptions; for instance, some cases of impetigo, erysipelas, dermatoses due to chemical or vegetable irritants such as may result either from deliberate application or in consequence of particular occupations—cantharides, croton oil, nitric acid, satin wood, primula obconica, and so forth; rare cases of tertiary syphilis, bromidism, iodidism, and glanders, congenital syphilis, and possibly others. In none of these conditions is eosinophilia likely to occur, so that the differential blood-count may serve to differentiate between them and the true bullous dermatoses, of which the best examples are pemphigus, erythema bullosum, erythema iris, dermatitis herpetiformis, and herpes gestationis. We have not time to enter into a discussion of all these in detail, but there are certain points that I wish to bring before you in connection with them, of which the two chief are, first, that they are probably not distinct diseases, but are closely related to one another, though probably due to different causes in different cases; and, secondly, that they are probably due, not to nervous changes, but rather to the effects of chemical or other poisons circulating in the system.

I show you here paintings and wax models which illustrate the main points of each type of the disease (details of the specimens omitted), but although in these reproductions the types are, for the most part, well marked and distinct, I want you to recall the condition presented by the patient that I showed you at the beginning of the lecture, in whom, in some parts, there were blebs without redness—the type spoken of as true pemphigus; in other parts redness before the blebs appeared—the type spoken of as erythema bullosum; and in other parts, again, a drying in of the blebs at the centre, with a concentric spread, in some places with redness, in some places without any—the type termed erythema iris. In other words, our single patient is either suffering from the three diseases, pemphigus, erythema bullosum, and erythema iris, at the same time, or else, what I am sure you will agree with me seems much more likely, the three types are merely interchangeable manifestations of the same disease.

The second point is, that the lesions are to be regarded as due to toxic or poisonous substances circulating in the blood, and not to purely nervous influences. Those who have propounded the nervous view seem to be guided by the fact that in many cases, especially in dermatitis herpetiformis, the eruption may bear some resemblance to herpes zoster in so far as there may be groups of vesicles upon a red base. Now, herpes zoster is on all hands allowed to be related to an inflammation of the posterior nerve roots of spinal nerves, or to a similar inflammation of the sensory cranial nerves, notably the fifth; and it has been too easy a step to assume in consequence that other hepetiform eruptions are nervous too. Our patient, however, seems to afford considerable evidence in favour of a poison being the cause of the eruption, and if you will recall to mind the history of the case that I have given you, you will see that the effects of eating the same bad meat were so different in two different individuals, that whereas the husband developed acute diarrhœa and vomiting such as you are all familiar with in connection with ptomaine poisoning, the wife developed acute pemphigus instead; I think there can be no doubt that the same ptomaine which produced gastro-intestinal symptoms in the one produced a rather rare skin disease in the other. If this is so in one case it is probably so in others also.

I do not want you to carry away the impression that the poison is necessarily a ptomaine, however. You are all familiar with the acute skin rash that may be produced in certain individuals after they have eaten strawberries; in other individuals after eating perfectly good sweet shellfish or crab, and so on. The idiosyncrasies of people in this respect are so great that there are probably many different substances that may produce skin eruptions in certain individuals, and in certain of these cases the eruptions will be of the bullous type. Perhaps some day some of you will meet with a case of herpes gestationis in which there is a remarkable susceptibility of the patient during the course of an otherwise normal pregnancy. Somewhere about the middle of the pregnancy fearful skin irritation develops, and presently vesicles and blebs appear, and they continue to come out in successive crops until the child is born, when they cease almost immediately, and the patient's skin remains perfectly well unless a subsequent pregnancy should occur, when precisely the same bullous dermatosis develops again. It is probable that in such a patient some of the normal substances absorbed by the mother from the uterus are the cause of the skin eruption.

It is quite clear that it is of considerable importance for you to make up your minds as to

whether you think the bullous dermatoses are nervous on the one hand, or due to some poison in the system upon the other. If you think they are toxic, then you need to look for the source of the poison and if possible counteract it.

The patient whom we have seen to-day is rapidly improving by treatment devoted, in the first instance, to eliminating as much as possible of the poisonous meat from the intestines by means of castor oil and saline purgatives, after which she received the following mixture :—

℞ Glycerini Acidi Carbolici ... ℥v.
Mist. Acidi Co. ... ad. ʒi. quart. hor.

the idea being to give something by the mouth that would inhibit the multiplication of the ptomaine-forming bacteria in her intestines. Arsenic is a drug commonly employed in cases of pemphigus, especially when the precise source of the poisoning is not known. I should like to say, however, that in certain cases that resist treatment by arsenic, one or other of the preparations of belladonna, given in small doses to begin with and increased if necessary, often prove efficacious. The external treatment consists largely in preventing the bullæ from becoming septic, milder preparations such as boric acid being used when the condition is acute, whilst in chronic cases that you may meet with, you may require to use even so stimulating an ointment as that of chrysarobin.

I had not proposed to deal with treatment to-day, but rather to indicate to you how in the bullous dermatoses, in cases of true asthma, and in cases of infection by certain parasites, considerable assistance in diagnosis may be obtained from the discovery that blood films present a decided degree of eosinophilia.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Proposed Museum of Hospital Antiquities.

Sir,—I have been much interested in your editorial note, and in Mr. Sichel's letter, on the subject of a special museum for hospital antiquities, and entirely agree that such an institution is most desirable. As matters stand at present, things likely to prove of the highest interest to future hospital generations have been and are being removed to private ownership lest worse befall them.

I feel assured that if it were only announced that a room on the premises had been set apart for the reception and safe custody of objects connected with the history and development of Guy's, a collection of great local and antiquarian interest could be speedily brought together, which otherwise would be lost to this institution.

A trivial nucleus is frequently of service in attracting about it matters of greater value, and if a small collection of old engravings of Guy's will serve this purpose it is at the disposal of any responsible persons who may be deputed to give effect to your welcome suggestion.—Yours, etc.

December 20th, 1909. V.

[Our correspondent's generous offer should certainly arouse interest in this project. If any other offers of a similar nature are forthcoming, it should be easy to enlist the sympathies of those in authority, and then the success of the scheme would be assured.— Ed.]

Presentation to the late Conductor of the Choral Society.

Dear Mr. Editor,—Will you allow me through your columns to thank the many past and present members of the Guy's Musical Society who have been good enough to subscribe to the memento for Mr. Henry Taylor.

I have received subscriptions from over twenty members of the Students' Glee Club, and from fourteen members of the Nurses' Choral Society: while, in addition, many members of the Guy's Musical Society, as at present constituted, have been pleased to add their subscriptions. I have forwarded the cheque for £8 and a list of subscribers to Mr. Taylor, as I suggested.—I am, yours truly, RICHARD FELTON.

Broadbottom, nr. Manchester,
December 18th, 1909.

College Amenities.

Dear Sir,—I should be much obliged if you could find room for the following complaint against the management of the college.

It has been necessary to make some structural alterations somewhere in the foundations of the building. Is it necessary for any known reason that the masons should start work at six o'clock a.m. every morning, particularly at this season of the year, when one is lucky to have had four hours' sleep by that time in the morning? This arrangement is on a par with the diabolical management of the water supply, by which no hot water is obtainable after 8 a.m. At present the management seems to take an inhuman pleasure in making the college residents as uncomfortable as possible. It would be hard to find a parallel to such a combination of insanity and incompetence in the annals of human history. One can only hope that the authors of such crude torture may find a similar noise awaiting them in the infernal regions, to which they have been consigned by a working majority in the college. O! that we might

R. I. P.

The General Election.

Dear Sir,—I shall be glad if any of your readers, whether past or present Guy's men—or, for the matter of that, women—who are in sympathy with me will give me their support as the Conservative, Unionist, and Tariff-Reform Candidate in Rotherhithe at the General Election, and in the campaign that leads up to it.

Our polling day will probably be the 14th or the 17th January, on which date I shall be grateful for the loan of motor-cars or other vehicles, and I shall be glad to have promises to this effect in advance.

There is endless work to be done in house-to-house canvassing, in literary, organising, and other kinds of work at all hours of every day from Wednesday, December the 29th, onwards.

I shall be grateful for any offers of help received at this address. Every applicant will be given his choice of work and all necessary particulars.—Yours faithfully,

F. E. FREMANTLE.

Zetland House,
21st December, 1909.

[It must not be inferred from the publication of this letter that the Gazette is in any way associated with the political party concerned, or indeed with any political party. Nor must any attempt be made to gauge the general feeling at the hospital from it. As we recently had occasion to point out, both the Gazette and the hospital are, and must remain, entirely neutral in regard to politics.

We publish Mr. Fremantle's letter on the understanding that the correspondence column is equally open to any old Guy's man, whatever his party.—Ed., G. H. G.]

Change of Address.

Brooke Churchill, Capt. R.A.M.C., from Lucknow, to Bhamo, Burmah, India.

Cobb, W. E. S., M.R.C.S., L.R.C.P., to "Field View," 294, Balham High Road, S.W.

Martin, J. Birch, to Birmingham and Midland Eye Hospital, Birmingham.

Minett, E. P., M.R.C.S., L.R.C.P., M.D., D.P.H., to the Royal London Ophthalmic Hospital (Moorfields).

Smith, D. Wilberforce, M.B., B.S. Lond., from Mossel Bay, Cape Colony, to Lindenthorpe, West End Avenue, Pinner.

Tanner, John, M.D., M.R.C.P. Eng., F.L.S., from 19, Queen Anne Street, W., to 4, Claremont House, Lithos Road, Hampstead, N.W.

Turner, Philip, M.S., B.Sc., F.R.C.S., to 66, Wimpole Street. (Telep. 3313 Pad.).

Wragg, Ernest, from Cleveland Road, Brighton, to Kincraig, York Road, Southend-on-Sea.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Appointments.

Medical School Appointments.

January—March, 1910.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants.—Messrs. N. A. D. Sharp, V. T. P. Webster, H. L. Attwater, L. Bromley, R. C. H. Francis, F. S. Adams.

Dressers in the Throat Department.—Messrs. E. L. Elliott, W. T. Clarke, H. Steinbach, F. S. D. Berry, H. W. Doll, H. F. Percival.

Medical Ward Clerks.—(Extensions.)—Messrs. T. S. Allen, E. R. Hart, H. G. Crawford, G. T. Foster Smith (Dr. Hale White); W. E. S. Digby, E. W. Blake, R. C. Poyser, W. S. Hyde (Dr. Pitt); A. Sandison, B. R. Parmiter, T. E. Roberts, L. Milton (Sir C. Perry); J. L. M. Symns, G. C. Covell, W. M. Langdon, W. S. Lacey (Dr. Shaw). E. C. Peers, C. F. Constant, D. A. Davies, T. P. Cole, Jap Ah Chit, J. M. Joly, G. B. H. Jones, H. Sharpe, C. A. R. Gatley, W. S. George, V. A. Luna, M. Pern, S. S. Crosse, G. W. B. Garrett, T. B. Heaton, W. J. D. Smyth.

Assistant Surgeons' Dressers.—Messrs. F. Cook, C. Aldis, J. L. Stewart (Mr. Steward); E. G. Schlesinger (Mr. Fagge); V. Glendining, H. L. Hopkins, A. C. L. D'Arifat (Mr. Rowlands); H. N. Eccles, L. M. J. Menagè (Mr. Turner).

Surgical Ward Clerks.—Messrs. R. S. Kennedy, V. F. Soothill, C. Worster-Drought.

Post-mortem Clerks.—Messrs. E. A. Penny, G. Dunderdale, G. Maxted, R. Stout, T. D. M. Stout, J. A. Edmond (January — March); J. Pryce Davies, G. B. Cockrem, W. E. Fox, G. T. Mullally, G. Y. Thomson, R. Heaton (February 16th—May 15th).

Clerks in the Skin Department.—Messrs. J. A. Edmond, A. Sandison.

Aural Surgeon's Dressers.—Messrs. E. L. Elliott, W. H. Talfourd Jones, H. Steinbach.

Obstetric Dressers (January—March).—Messrs. A. D. Vazquez, R. Montgomery (Mr. Targett); W. T. Chaning Pearce, G. H. Hunt (Mr. G. Bellingham Smith).

Assistant Surgeon's Clerk.—Mr. H. J. Hoby (Mr. Steward).

Dental Appointments.

The following appointments have been recommended by the Dental Council, and approved by the Treasurer:—

Dental House Surgeons.—Messrs. F. B. Bull, C. H. Bradnam, R. W. Powell.

Assistant Dental House Surgeons.—Messrs. C. H. Barnett, C. J. Henry, E. P. Hudson.

Assistant Demonstrators of Dental Mechanics.—Messrs. H. L. Meyer, W. H. Wotton.

Assistant Demonstrators of Dental Metallurgy.—Messrs. H. F. Barge, E. O. Yerbury.

Christmas Camp.

Up from the cold dim valleys, down the hill
That laughs with light, through foul and fairest weather:
From peaks where sombre pine-trees gloom together;
By black ravine, or merry meadow rill;
Silk-shod from sheltered ways, or fouled with mire;
With shoulders braced or bowed; with limp or leaping;
With hopes and fears; and light heart jest or weeping;
Young, old, and rich, and poor draw to the fire
That beckons to the Christmas bivouac:
From all the paths of pilgrimage they call as—
The cheering rays—and bid, whate'er befall us
To-morrow, now to rest and loose the pack.

Come, then, draw close! What! is it you, and you?
Your hand, long-parted friend!—ah, see his bleeding
Foot there!—and those children's wet eyes needing
Love. What, *your* face?—can *we*, too, start anew?
How did estrangement come? No need to weigh
Your blame or mine, it was the price of living;
Take helpful hands, with no talk of forgiving;
Friend, life has tyrants we must needs obey—
Fast in the very blood of you and me,
They wrong us, goad us to our hearts' undoing;
Let us not, slave-like, smite each other, hewing
Heart from kin heart, but join and fight us free!

Close the great circle, there is much to say:
Some tell that shades, outside this time of loving,
Grow deeper and more grim; that, in them moving,
They see dark shapes, more threatening day by day.
Faith's brow is bent, Hope smiles but through her tears,
And the world worsens: quick, then, with warm greeting,
And all wise counsels of the road, for meeting
The black Freebooter, and the bandit Fears.
But if Life's dream seem good to me and you,
And bright the goal, still let us tell our dreaming,
Till visioned hopes take form from shadowy seeming,
Frame rosy plans, and fix our rendezvous.

Pile high the crackling brands, and with them cast
All jealousies, then let us raise a singing
From the heart's hymnal, set true echoes ringing,
And listen to the Poem of Things Past;
Hear all the plans for joy our hearts can make:
How best to live full life, and face Death, dying,
And hear, oh! hear, these sheltering branches sighing—
They, or our souls' own voice—"for others' sake!"
Oh, brothers, sisters, haste to the heart's feast,
For comrade-thoughts can make the stern load lighter,
And each Christ's-day should build our camp-fire brighter,
And, see! His ancient Star still gems the East!

HABBERTON LULHAM.

Guy's Hospital Musical Society.

A MOST successful concert was given in the Physiological Theatre on Tuesday, December 14th, by the above Society, under the conductorship of Mr. Clive Carey, Mus.Bac. The whole programme, with the exception of Mr. Emil Krall's 'cello solos, was performed by the choral section of the Society, and they are to be congratulated on the unqualified success of their efforts. The programme was well chosen—not too ambitious, and at the same time giving the Society plenty of opportunities of using to good advantage the musical talent it possesses.

The concert was opened with two part-songs, "Full Fathom Five," by Ch. Wood, and "Shall I tell you whom I love?" words and music by S. S. Wesley. Both these were sung with good expression and balance of tone, and if a certain degree of indecision was noticeable in the first, this was more than counterbalanced by the excellent variety of tone and clear enunciation of the words. This latter was indeed observable, not only in these items, but throughout the whole concert. The most important item in the first half of the programme was the Cantata, "The Sands of Corrimmie," by E. M. Boyce. This is for female voices only, and both words and music are beautifully descriptive. It was, on the whole, sung with admirable finish, and the artistic colouring of the music was well brought out. We would like, however, to have had a little more enthusiasm infused into the part immediately following the solo; the piano passages were the most striking feature, the equality of tone and clearness of expression that Mr. Carey obtained being extremely pleasing. The solo was well sung by Nurse Miller. Two vocal quartettes were sung during the first half of the programme, "Since first I saw your face," by Thos. Ford, and "Ye Spotted Snakes," by R. J. S. Stevens. Of the soloists, Mr. O. Parry Jones sang "The Border Ballad." Mr. Parry Jones used his voice, especially the lower register, with good effect, though the song would have been still more effective had there been a little greater variety of expression. Nurse Millar, who sang "My dear Soul," and, as an encore, "Allah," has an excellent contralto voice, and her singing of these two songs was most enjoyable. Mr. Emil Krall played the two 'cello solos, "Elohenn," by Gerusheim and a Bach Gavotte, in his best form, and delighted the audience with his finished technique and artistic interpretation of both these solos.

The first half of the programme ended with four Sea Chanteys, sung by Mr. Clive Carey and a male chorus. Mr. Carey, well supported by the chorus, gave a most attractive performance of these picturesque songs, singing them with exactly the right spirit, which the audience found most infectious.

In the second half of the programme the choir sang two works of C. Villiers Stanford, a part song, "Heraclitus," and a glee, "The Fairies." The part-writing

of these is particularly attractive, and the singing, especially of the second, was excellent. Two quartettes, by the same composer, were also given, the *ensemble* in these being noticeably good. Mr. Peall sang a characteristically enjoyable solo, "Rose in the Bud," and Mr. Emil Krall again showed the variety of his technique by a most graceful performance of an "Allegro Moderato," by Grazioli, and a spirited rendering of Popper's "Tarantelle." One of the most enjoyable items in this part of the programme was Nurse Lewis's singing of Massenet's "Elegie," Mr. Krall playing the 'cello obligato. The song suited Nurse Lewis's voice excellently, and she sang with a delightful purity of tone. As an encore she gave a most pleasing performance of an old English song. Mr. Dundas Irvine, who, by the way, as secretary of the Society, was in large measure responsible for its success, sang a dramatic setting of Wm. Watson's, "The Lute Player," by Frances Allitson, with much feeling and artistic finish.

The concert was concluded with a performance of Mendelssohn's chorus for male voices, "Thou comest here to the Land," from *Œdipus in Colonnos*. The whole chorus sang with much spirit and evident enjoyment, the tenors being particularly successful in their rather trying part. The accompanists for the evening were Sister Ethel and Mr. Depree. We understand that it is the last time Sister Ethel will appear at these concerts as accompanist, and during the evening she was presented with an ivory backed toilet-set from the members of the Society in recognition of her invaluable services to them in the past.

The Society is to be congratulated on one of the most successful concerts held recently at Guy's, this success being due in part to the enthusiasm and hard work of their secretary, Mr. Irvine, and especially to the skill and keenness of their new conductor, Mr. Clive Carey. Mr. Carey, who has only been practising with the Society for two months, has indeed achieved a great success, and the excellent results he has obtained augur well for the future continued success of the Society.

Appointments.

Naval and Military.

Staff-Surgeon R. F. Clark, R.N., to the *Brilliant*, on recommissioning.

C. G. Sprague, having qualified for the Naval Medical Service, is appointed a Surgeon in His Majesty's Fleet.

Civil.

Desprez, H. S., L.R.C.P. and S. Edin., has been appointed District Medical Officer by the Okehampton (Devon) Board of Guardians.

McDougall, J. T. M., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the No. 2 District of Southampton.

Minett, E. P., M.R.C.S., L.R.C.P., M.D., D.P.H., has been appointed Bacteriologist to the Royal London Ophthalmic Hospital (Moorfields).

In Clinical.

BY R. P. ROWLANDS, M.S.

The surgical work in Clinical is extremely interesting, and I have often thought that a brief account of an assistant surgeon's experiences there might prove interesting. A short and frank consideration of the problems, methods, successes and failures ought to be of value to others. I have just finished one of my six weeks' terms of this fascinating work, and now venture to write something about it.

A middle-aged woman came in suffering from acute intestinal obstruction, apparently in the small intestine, because there was no excessive distension of the abdomen. There was a little pyrexia, and it was thought that there was also early peritonitis, and there was some rigidity of the lower part of the abdomen. There were excessive tenderness and some bulging, but no œdema on rectal examination. An incision was made over the lower and inner part of the right rectus. The peritoneum and posterior wall of the rectus sheath were incised under cover of the rectus. The lower part of the ileum was found to be greatly distended and congested, and fixed by dense adhesions to the right brim of the pelvis. A loop of small intestine above this had twisted upon itself and its mesentery, and had turned to the left and fallen into the pelvis; it was gangrenous in parts, and formed the upper wall of a pelvic abscess. Before this was opened the general peritoneum had been packed off with gauze rolls. The abscess was opened freely and all the pus was mopped away. The piece of gangrenous bowel was resected. The lower section was close to the cæcum, into which it was invaginated. While the proximal end was being similarly treated the patient became very bad, and the contemplated anastomosis between the ileum and the colon had to be given up and a Paul's tube was tied into the end of the bowel. A large drain was inserted in the pelvis, and the upper part of the abdomen was closed. The patient was very ill for a few days, and it was only due to the efforts of Mr. Darke and the nurses that she lived through the next three days. She gradually gained strength but her pulse still remained very weak, and there was some intermittent pyrexia, so that the anastomosis could not be done safely before three weeks after the original operation. This could no longer be deferred, because the patient was then losing flesh again, and was suffering a

great deal from the irritation of the discharges. A rubber tube was passed into the open end of the ileum and fixed in position with clip forceps. The wound was then covered with towels and an incision was made to the left of the umbilicus and slightly above it. The tube was felt in the ileum, so that there was no difficulty in distinguishing the piece of bowel to be taken for the anastomosis. This was tied and cut across. Both ends were invaginated and a lateral anastomosis was made between the ileum three inches above the invagination, and the first part of the transverse colon on its lower surface. This part was chosen because its wall was fairly thick, and it was considered wise to make the anastomosis as high in the colon as possible. After the operation the patient was very feeble for two or three days, but she gradually improved. An abscess formed in the right buttock. The skin of the abdomen soon became natural. The patient gradually put on weight, and she was able to eat full diet after a few days. Very little discharge escaped from the fistula at the lower end of the ileum, but a great deal of pus discharged from the sinus at the lower end of the primary wound. The secondary wound at the anastomosis healed perfectly. I do not think that I have ever seen a patient so near death recover. The recovery is no doubt due to the increasing care of the "clinical" and of the nurses. Volvulus of the small intestine is, in itself, a very grave thing, but when it is so late as to be complicated by a large pelvic abscess, it becomes doubly dangerous. The volvulus in this case was due to contracting adhesions at the lower end of the ileum, following upon appendicitis. These adhesions had fixed the bowel and narrowed the lumen. A coil above the stricture had become distended, and ultimately twisted upon itself towards the left. As the loop of bowel was sloughing, it was decided to resect it. It is always wise to resect gangrenous bowel at the primary operation; for it is a dangerous thing to leave the gangrenous loop in the abdomen, whereas it takes very little time and gives very little shock to remove the dead part. The patient's condition was so bad that the operation could not be completed. The cæcal end of the ileum had been blinded, and the other end was being closed preparatory to a lateral anastomosis, when the operation had to be ended and a drain inserted in the open end of the ileum. A lateral anastomosis is much safer than end-to-end union, because of the danger of leakage at the mesenteric border and the narrowing of the lumen which so often follow the latter. A partial obstruction in these cases is the cause of leakage at the suture line, because of the excessive peristalsis which it induces. There is no limit to the size of the opening that can be made by lateral anastomosis, so that the drainage is much freer. In this case it was impossible to join the two parts of the ileum at either the first or second operation, because the cæcal part was so narrowed and so adherent. The first part of the large intestine, the cæcum, is too thin, and in this case was also too adherent. The ascending colon is not easily brought into the wound. The sigmoid flexure has the following advantages: It is freely movable and its walls are thick. It has the disadvantage, however, of being low down in the large intestine, so that absorption is not so good as when the anastomosis is higher. In this case I selected the first part of the transverse colon, because it was easy to bring it into the wound and to join the ileum to it; and on account of the extent of the resection I believed it to be important to make the anastomosis as high up in the large intestine as possible. The patient was too ill for any time to be wasted, therefore I did not resect the part of the ileum terminating in the fistula. Moreover, this piece gives rise to very little trouble, for it only discharges a little mucus. It can be removed at a later date if necessary, when the pelvic abscess has entirely healed. The weak part of the abdominal wall can be made good at the same time. The rubber tube passed into the fistula was, as usual, a great help in identifying the piece of bowel to be used for the anastomosis. It saved time and prevented the mistake of making the anastomosis too high in the small intestine.

Fund for Mr. A. A. Clark.

We have received, and here acknowledge, the following subscriptions to the above fund:—

	£	s.	d.
Mr. L. A. Dunn	2	2	0
Mr. F. E. Fremantle	1	1	0
Dr. C. E. Iredell	1	1	0

THE EDITOR will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Payment is a matter of arrangement, and the fees that the GAZETTE *can offer are merely nominal, but if the writer desires any remuneration that fact should be stated. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs.*

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Practical Guide to the Administration of Anæsthetics. By R. J. Probyn-Williams, M.D. Second edition. (Longmans, Green & Co.) Price 4s. 6d. net.

Since the first appearance of this book in 1901, several matters connected with anæsthetics have come into prominence, and due attention is paid to them in this new edition. Thus, the administration of ether by the open method has been gaining ground in this country, and a section is therefore devoted to it. But is it true that "there is a greater risk of bronchitis following the administration of ether by this method?"

Another method which has come into prominence since 1901, is spinal analgesia. A special chapter on this subject has been added, and an account of Mr. Barker's apparatus and *technique* is given. Dr. Probyn-Williams rightly remarks that "at present spinal analgesia is in the experimental stage in this country, and it cannot be determined to what extent it will replace general anæsthesia."

New sections on status lymphaticus, on delayed chloroform poisoning, and on new apparatus such as the Vernon-Harcourt chloroform inhaler, have been added. The book thus brought up to date is one of the handiest and most reliable of the smaller books on the subject, and it should supply all the needs of the student.

Outlines of Bacteriology (Technical and Agricultural). By David Ellis, Ph.D., D.Sc., F.R.S.E. (Longmans, Green & Co.) Price 7s. 6d. net.

To the medical practitioner and student the science of bacteriology is of very special interest; so special, indeed, that his knowledge of the subject rarely extends beyond a nodding acquaintance with those micro-organisms most commonly met with in disease or mentioned in the syllabus.

The general student of the subject, however, has a wider interest, and to him especially is the book under notice of value.

The book is intended only as an introduction to the subject, and deals with bacteriology in all its branches, equal attention being paid to the Klebs-Löffler bacillus and to the bacillus responsible for the ripening of Gorgonzola cheese.

The book is well printed, and is conveniently divided into short chapters, such an arrangement being well suited to a book covering so large a field; there are many illustrations, mostly diagrammatic, and we think that it is a pity that the drawings of the bacteria themselves have been reproduced on so large a scale, as there is no morphological detail to make clearer by this, and the apparent crudeness of the drawings is not attractive.

The treatment of the subject-matter is professedly elementary, and is therefore easily read, and the book should prove useful to the general student requiring an introduction to bacteriology.

To the medical student the book, though of considerable interest, is of little academic value.

Handbook of Physiology. By Professor W. D. Halliburton. Ninth Edition. (John Murray.)

This is undoubtedly one of the most popular of English text-books of Physiology for the elementary student, and, as such, it is essential that it should be kept thoroughly up to date. Consequently, at a time when so many advances have been, and are being, made in the various domains of physiology, a new edition is particularly welcome. The book gives the main facts of physiology, and such theories as have experimental evidence, probability or eminent authority to support them. There is further a brief account of the histological structure of those tissues of greatest physiological importance, an inclusion which makes the book more complete and satisfactory to the student of one text-book, but renders it rather tedious to the greater number of students who study Histology in more detail from separate books.

The amount of histological matter has been considerably curtailed since the last edition, but, in our opinion, much that is still included might with advantage be omitted. While much recent work, particularly on the subjects of Respiration, Intestinal Movement, and the functions of the cerebrum and cerebellum has been mentioned, much has of necessity been omitted, and the book must remain merely an introduction to the science of Physiology.

One omission in particular calls for remedy, namely, the absence of a chapter on the functions, and course, and connections of the fibres of the sympathetic nervous system. A good deal of information on this subject is interspersed throughout the book, but the advances in our knowledge in this field have been so extensive, and the subject is of such practical importance, that a separate chapter would not only justify its existence, but would supply a real need.

The book throughout is written in a very readable and interesting style, and the majority of the illustrations are excellent.

The author encourages the student throughout to reason things out for himself, a thing which the dogmatism of some other text-books of physiology renders impossible.

Altogether the book is to be recommended as an excellent and up-to-date elementary text-book, and Professor Halliburton is to be congratulated on having kept the present edition well up to the high standard attained in past editions of the work.

The "Wellcome" Exposure Record and Diary, 1910. Price 1s.

We may recommend this little pocket-book to all who are taking up amateur photography. To those who

have known it in previous years it will need no recommendation. For the convenience of photographers in different parts of the world, three editions—for use in the Northern Hemisphere, Southern Hemisphere, and the United States respectively—are issued. Care should be taken to specify which edition is required.

Proceedings of the Royal Society of Medicine. November, 1909. (Longmans, Green & Co.) Price 7s. 6d. net.

This number opens the third volume of the "Proceedings." Readers will turn with curiosity and interest to Dr. William Coley's account of the "Treatment of Inoperable Sarcoma by Bacterial Toxins," *i.e.*, the mixture of the toxins of Streptococcus erysipelas and Bacillus prodigiosus, which has become generally known as Coley's fluid. A table of fifty-two cases of complete or partial success contains some sufficiently striking results: but where, we wonder, is the table of failures, for Dr. Coley speaks of having treated some five hundred cases? The author now recommends his fluid for all cases of inoperable sarcoma (except the melanotic forms, in which no improvement has followed, thus, Dr. Coley thinks, bearing out their carcinomatous nature); in cases of sarcoma of the long bones, a two or three weeks' course to give the patient the chance of escaping amputation: as a prophylactic against recurrence after "operations for primary sarcoma"; and, lastly, after operations for carcinoma with a similar object.

In the Therapeutical Section an interesting discussion on the "Teaching of Therapeutics in the Hospital Wards," opened by Sir Clifford Allbutt, is reported.

As a sign of the opening of the winter session many of the sections contain presidential addresses. Under this heading come Dr. Mott's address on the "Present Position of the Neurone Doctrine in relation to Neuropathology"; Mr. Godlee's paper on "Prognosis in certain Inflammatory Diseases of the Lungs and Pleura commonly treated Surgically"; Mr. Hern on the "Relation of Dentistry to other Branches of Medicine, and its bearing upon the Public Health"; Mr. James Niven's address on "Poverty and Disease"; Dr. Sloan's on "Electro-therapeutics in Gynæcology"; and Dr. Leonard Williams' address before the Balneological and Climatological Section, entitled, "To Redress the Balance."

Guy's Hospital Reports, 1909, vol. lxiii. Edited by F. J. Steward, M.S., and Herbert French, M.D. (J. & A. Churchill.) Price, to subscribers, 6s.; to non-subscribers, 10s. 6d.

The scientific work being carried on in the various departments of the hospital is well represented by the thirteen articles contained in this volume. Thus the work of the Gordon Laboratory is represented by Mr. Macalister's paper on "The Pathology of Paroxysmal Hæmoglobinuria: a Critical Review"; Mr. Wheeler's "Observations on Primary Carcinoma of the Liver, with references to Museum Specimens"; "Observations on the Changes in the Blood and Bone Marrow produced by experimental Aniline Poisoning," by Mr. C. Price Jones and Dr. Boycott, and by Dr. Nicholson's paper on "Kidney Tumours." Two papers come from the Physiological Laboratory—"A new method of estimating Lactic Acid in Urine," by Mr. J. H. Ryffel, and "The Action of Saline Purgatives," by Dr. Hertz and Messrs. Cook and Schlesinger. There are two surgical articles: Mr. Rowlands writes on "Some Points in the Treatment of Severe Talipes," and Mr. Fagge on "Brain Abscess," from a study of ten cases. Dr. French's long monograph on "Sixty-eight Cases of Pernicious Anæmia," is the chief contribution from the medical side. Dr. Hale White and Mr. Janmahomed's paper "On the Frequent Failure of the Urine to decompose in cases of Pulmonary Tuberculosis," is reprinted from the *Quarterly Journal of Medicine*. Drs. Cameron and Eyre have written a study of four cases of Human Glanders which have recently occurred in the hospital. Mr. Mollison has published an interesting case of congenital defect in the musculature of the abdominal wall, illustrated by two photographs. Mr. Bergin has an article on "Unilateral Exophthalmos: a Study in over three hundred cases, recorded and unrecorded."

Pupils' Physical Society.

A pathological meeting was held in the Library on Saturday, December 11th, Mr. Digby in the chair. Twenty-five members were present, and a number of interesting specimens were shown, many of them illustrated by microscopic preparations.

Sarcoma of tibia	Mr. Mullally.
Fœtus papyraceus in a case of twins	Mr. Gardiner.
Pedunculated tumour in œsophagus	Mr. Stebbing.
Two specimens illustrating acute gastric ulceration of infective origin	Dr. Cameron.
Melanotic sarcoma of eyeball ...	... Mr. Hunt.
Carcinomatous colo-duodenal fistula	... Mr. Todd.
Congenital hypertrophic stenosis of pylorus	Dr. Cameron.
Two cases of ectopia vesicæ ...	Mr. Digby.

In the discussions which followed the exhibition of the specimens the following members took part:—Drs. Cameron and Goodhart; Messrs. Maxted, Billing, Greene, Basker, Mutch, Todd, Marshall, McNair, the President and the Secretary.

Papers by Guy's Men.

Jordan, A. C., M.D. Cantab. On the use of Radium for Local Application within the Body.—*Lancet*, December 11th.

Rowlands, R. P., M.S., F.R.C.S. An Address on Mistakes in Diagnosis and their Avoidance.—*British Medical Journal*, December 11th.

Taylor, J. G., M.A., M.D., M.R.C.P. A Case of Syphilis of the Pancreas with a Pancreatic Calculus in the Duct.—*Lancet*, December 18th.

Sport.

Rugby Football.

GUY'S v. BEDFORD.

The International trial at Twickenham, and the holidays, prevented Guy's turning out anything like a representative side at Bedford last Saturday, Archer, Stringer, Lee, Roberts, Hind, Stranack, and Stokes being away. Stringer and Roberts were playing at Twickenham, and Stranack was also down to play for the South, but unluckily he was too ill to turn out, influenza claiming him as a victim. Hind was also at Twickenham in the capacity of reserve forward, and it is a matter for hearty congratulation that his sterling worth at length receives some recognition. He is a forward whose work is seldom appreciated, as it does not appeal to the eye so readily as that of the man who is brilliant in the loose. Hard scrummaging, thorough tackling, and the thickest of the heavy work will always find the Hospital secretary at his best. But to return to Bedford, they also were below full strength, and lacked the weight of the Guy's pack, as well as the pace of the backs, and as a consequence had to submit to defeat by 1 goal and 4 tries to 1 goal (17 points to 5).

Bedford started the game, and the visiting pack at once got to work, dribbling well and putting plenty of energy into their work. Not many minutes elapsed before Hoby got over the line with the first try, which was not added to. Resuming, Guy's still held the upper hand, but a penalty brought Bedford some slight relief, and at length they got as far as Lacey, who found touch well up the field. Haylett returned the attack, and with play in the Hospital 25, Haylett missed a fairly easy shot from a penalty against the Hospital. Later, when pressed, the Hospital was forced to concede a minor. From the drop-out Guy's got away again, and Lacey, who had come up in Jones' place in the three-quarter line, scored a good try, which was majorised, leaving Guy's leading at half-time by 8 points.

Bedford's three-quarters handled well on resuming, but Guy's were soon attacking again; no immediate score ensued as play swung to the other end, when Stafford was only tackled just in time. But before long Bedford reduced the lead, several men handled, and Hipwell receiving last, gained a try for Haylett to goal. Guy's soon drew further ahead, as by this time Bedford's efforts were dying out, while the Hospital team appeared almost as fit as at the commencement. Sampson, Roe, and Medlock gained tries before the game ended, and as none of the scores were added to, the final total read as above, Guy's Hospital 1 goal, 4 tries (17 points), Bedford 1 goal (5 points). Team:—

GUY'S.—G. E. W. Lacey (back); J. P. Jones, A. S. Roe, A. H. Harkness, B. Sampson (three-quarters); C. B. Pritchard, A. H. Medlock (halves); H. R. Mullins, W. E. Williams, A. H. Cook, H. Hoby, A. V. Moberly, T. D. Stout, Parry Jones, J. Tweed (forwards).

Referee: Mr. G. C. Rodway.

REMARKS.—With this match the first half of the season ends. Exclusive of the Bordeaux match, twelve first XV. fixtures have been played; eight won, two lost, and two drawn; the points work out at 204 against the opponents' 45. The two drawn matches were versus Cambridge University and Catford Bridge; the two lost were those played against Oxford University and Northampton.

United Hospitals Hare and Hounds.

UNITED HOSPITALS H. and H. v. BLACKHEATH HARRIERS.

At Blackheath, on Saturday, December 11th, the Hospitals lost their five-mile inter-team match with the Blackheath Harriers, at the latter club's headquarters, by 9 points, the Heathens having the lower score of 23 points to the Hospitals' 32. This was a great improvement upon last year's match, and credit is due to J. R. Barrow-Clough and A. P. L. Johnson, both of Guy's, for their splendid running, especially to the former, as it was his first cross-country match; he should turn out a most useful man for his hospital. The leading officials were: Dr. H. A. Munro, starter and timekeeper, and Mr. H. W. Haslegrave, judge. Appended is the order in which the runners reached home:—

Position.
1. C. A. Glaeser, Blackheath Harriers
2. C. H. Baxter, "
3. W. K. Fry, Guy's
4. R. A. Baldcock, Blackheath Harriers
5. J. R. Barrow-Clough, Guy's
6. A. P. L. Johnson, "
7. A. R. Small, Blackheath Harriers
8. W. E. Levinson, Guy's
9. J. M. Robins, Blackheath Harriers
10. H. V. Levinson, "
11. L. H. Taylor, Charing Cross
12. J. C. Godding, Guy's.

W. K. FRY, Hon. Sec.

Births.

EYRE.—On December 8th, at Holmsdale, Wandsworth Common, to Dr. and Mrs. Eyre, a son.

HOLLIST.—On December 8th, at Risely Lodge, Maidenhead, the wife of Gerald W. C. Hollist, M.R.C.S., a son.

TICEHURST.—On December 5th, at 54, London Road, St. Leonards-on-Sea, to Dr. and Mrs. Gerald A. Ticehurst, a son.

Marriage.

PRICE—FALDO.—On November 13th, 1909, at H.B M. Consulate, Busreh, Persian Gulf, by the Rev. E. H. Keymer, Maurice Dyball Price, M.R.C.S., L.R.C.P., to Bertha Marion, youngest daughter of the late Thomas Faldo and Mrs. Faldo, of Perry House, Catford Hill.

Death.

BERGIN.—On December 7th, at Clifton, George Frederick Bergin, M.B. Lond., M.R.C.S., L.R.C.P., in his 45th year.

Ed.—A. N. C.